# The Perception of Change

## Bergson and Contemporary Thought on Temporal Experience




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# Abstract

This thesis engages with central debates on the nature of temporal experience, drawing upon the thought of Henri Bergson. Part one, comprising two chapters, critically explores two issues at the forefront of contemporary research on the experience of time. The first chapter examines attempts by B-theorists of time to address the manifest flow of temporal experience, arguing that these have been thus far unsuccessful. The second chapter focuses on recent articulations of the Process View of temporal experience, according to which temporal experience itself has temporal structure. Recent varieties of the Process View, I argue, do not satisfactorily accommodate the experientially robust insight which provides the most powerful motivation for the position. This insight is captured by what I call the Experiential Process Thesis: we have a pre-reflective sense that our experience of change itself unfolds through time.

Part two, comprising three chapters, brings to bear perspectives from Bergson's work on debates concerning temporal experience. The third chapter connects themes from the first two. I argue that Bergson's account of temporal experience provides resources for a successful articulation of the Process View, insofar as it can accommodate the Experiential Process Thesis. What allows us to give shape to the thesis, on Bergson's account, is the explanatory role ascribed to an experiential feature of qualitative flow, which Bergson terms *durée*.

The fourth chapter discusses (i) the relation between memory and temporal experience, and (ii) the unity of experience over time. I suggest that Bergson's account cogently motivates a memory theory of temporal experience – which takes memory to be partially constitutive of immediate temporal experience – in contrast with a recent formulation of the memory account. I then argue that a view of experiential unity over time appealing to Bergson's *durée* is a theoretically parsimonious and phenomenologically attractive alternative to a number of proposals from the recent literature. In the fifth chapter, I focus on a frequently-discussed feature of 'continuous novelty' in temporal experience. I examine a suggestion from Bergson's work, according to which this aspect is paradigmatically found in a sub-class of agential experiences, namely experiences of creative agency.

# Contents

Acknowledgements 5

Introduction 6

Abbreviations 9

***Part I:*** *Dynamism & Process in Recent Thought*

**One** Debunking Flow: Reductive and Eliminative Accounts of Dynamic Passage 11

Le Poidevin's Projectivism 17

Paul: Illusions of Apparent Motion 26

Deng and Hoerl: A Veridicalist Response? 34

Prosser: Endurance and Dynamism 39

Conclusion 45

**Two** The Puzzle of Experiential Process 46

From Glow-Worms to Saddle-Backs 47

Motivating the Process View 54

Dainton: Co-Consciousness and Intrinsic Dynamic Patterning 60

Hoerl and Phillips: The Priority of the Interval 68

Conclusion 73

***Part II:*** *Bergson & Contemporary Thought*

**Three** Substantiating the Experiential Process Thesis: A (New) Path to Bergson's *Durée* 75

Bergson's Dual-Aspect Ontology of Temporal Experience 78

Bergson and the Process View 103

*Durée*: A 'Pure Introspection' Approach 111

Bergson on Temporal Experience : An 'Introspective-Theoretical' Approach 124

Concluding Remarks: Method and Experience 130

**Four** Processual Interventions: The Memory Theory & Unity Over Time 134

The Memory Theory: Tradition, Modification, and Dynamism 136

*Durée* and Unity Over Time 151

**Five** Agential Experience: Creativity and Temporality 161

Agential Experience: A Non-Reductive View 165

Creative Experience and Temporality 173

Conclusion 182

Bibliography 183

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# Introduction[1]

The title of this thesis refers to the topic covered in its five chapters: temporal experience, or the perception of change. It also refers, however, to the title (and topic) of a two-part lecture series delivered by Henri Bergson at the University of Oxford on the 26th and the 28th of May, 1911.[2]

At the time, Bergson's fame reached its zenith on both sides of the Channel. Between the years 1909–11, for instance, more than 200 articles on Bergson's thought were published in Britain alone. From 1910, the first authorized translations of his works appeared, and a lecture tour in front of packed audiences (in London, Oxford and Birmingham) soon followed. Before Bergson's New York lectures in 1913, John Dewey commented: "no philosophic problem will ever exhibit just the same face and aspect that it presented before Professor Bergson" (Mudge 1913: xxii).[3]

Time is the central theme of Bergson's work. And it was Bergson's unique way of understanding time, and our experience of it, which caught the attention of both scholars and the interested public alike. But the nature of time, as well as the nature of temporal experience, were also major preoccupations of the period during which Bergson made his central contributions. It would not be an overstatement to say that the period bracketing the turn of the 20th century was a golden age in the philosophy of time. In France (e.g., Renouvier, Pillon, Bergson), the States (e.g., Peirce, James), Britain (e.g., Ward, Hodgson, Bradley, Russell,

[1] Since topics in contemporary philosophy of temporal experience are introduced extensively in the course of my discussion in the following chapters, in the introduction I offer a glance at the historical background relevant to chapters three to five.

[2] First published in 1911 by Clarendon Press as *La perception du changement*, and reprinted in 1934's *The Creative Mind* [*La pensée et le mouvant*] (CM 153-86).

[3] See Soulez and Worms (2002: Ch 5-6), Canales (2015: Ch 1), Sinclair (2019a: 14-8), Herring (2019) for recent discussion of Bergson's reception during the period.

McTaggart, Alexander, Broad), Germany (e.g., Meinong, Stern, Husserl) – the era saw a surge of innovation on the topic.

Whatever the reasons for the ebbing of Bergson's influence during later decades in continental Europe were,[4] Russell's unappreciative take on Bergson's thought was certainly a key factor in the fading of interest in Britain from the second decade of the century onwards. But there is something that Russell shared with those influenced by Bergson's work: an appreciation for the kind of poetic unity evinced by Bergson's writings (Russell 1946: 827-8). Levinas, who in a late interview noted the influence Bergson's thought had upon him during his early philosophical education, mentioned that following his studies he decided not to engage in research on Bergson's "completed, accomplished, and perfect as a poem work" (1985: 28). It is fair to say that an appreciation for the literary force of Bergson's work was widely shared.[5] But considering a work as possessing self-enclosed, poetic unity can blind both the critic and the sympathetic reader. In 1959, Merleau-Ponty contrasted a celebratory attitude to Bergson's thought, which takes it to possess a self-enclosed unity, with an understanding of Bergson's philosophy 'in the making':

> Established Bergsonism distorts Bergson. Bergson disturbed; it reassures. … Bergson was a contact with things; Bergsonism is a collection of accepted opinions. Reconciliations and celebrations ought not to make us forget the path Bergson traced out alone and never renounced. They ought not to make us forget that direct, sober, immediate unusual way of reconstructing philosophy, seeking the profound in appearances and the absolute beneath our eyes. Forget in short the spirit of discovery which, underneath the most extreme propriety, is Bergsonism's primary source. (1964: 183)

[4] See Sinclair (2019a: 26-9, 265-8).

[5] Bergson was awarded the Nobel Prize (1927) for literature. Somewhat ironically, Bergson and Russell were the only two (academic) philosophers who received the prize.

The present research aims to reclaim something of the spirit of discovery in Bergson's thought, to recover aspects of Bergson's thought 'in the making'. And it seems to be a fitting time to do so. Recent years have seen a flurry of scholarship on the topic of temporal experience, aspects of which I explore in the following chapters. There has also been substantial renewal of interest in Bergson's work, in France (e.g., Worms 2013/2004, François 2008a, Riquier 2009, Lapoujade 2010, Kisukidi 2013)[6] and in the Anglophone world (e.g., Mullarkey 1999, Ansell-Pearson 2002, Lawlor 2003, Moore 2012: Ch 16, Lefebvre 2013, Canales 2015, Dainton 2017b, Sinclair 2019a). As of yet, however, there has been no concerted treatment of Bergson's ideas on the nature of temporal experience, as a well-defined view in the philosophy of time and mind.[7] In what follows, I aim to fill that gap.

Before we begin, a word on the particular angle on Bergson's thought that I offer in what follows (in Ch 3-5). My focus is on Bergson's account of temporal experience. I shall not examine (though I will briefly note whenever directly relevant) Bergson's views on the metaphysics of time, or his critique of the scientific measurement of time. My discussion will also largely leave out extensive engagement with the body of scholarly work on Bergson's thought (though important insights and debates will be noted). The conviction guiding this choice is that Bergson's ideas on the perception of change, and their relation to contemporary debates, deserve detailed examination in their own right, independent of Bergson's other contributions to the philosophy of time.

[6] Much of the recent wave of interest in France has surrounded the publication of the first critical edition of Bergson's works, from 2007-11.

[7] Though of course Bergson's ideas on temporal experience are mentioned in almost every study of his thought. See Dainton (2017b), which I discuss in the third chapter, and Deppe (2016) for recent publications focusing on Bergson's conception of temporal experience.

# Abbreviations

I cite the English translations of Bergson's texts with the following abbreviations:

| | |
|---|---|
| TFW | *Time and Free Will* |
| MM | *Matter and Memory* |
| CE | *Creative Evolution* |
| ME | *Mind-Energy* |
| DS | *Duration and Simultaneity* |
| CM | *The Creative Mind* |

I refer to Bergson's untranslated works with the following abbreviations:

| | |
|---|---|
| HIT | *Histoire de l'idée de temps. Cours au Collège de France 1902– 03* |
| HTM | *Histoire des théories de la mémoire. Cours au Collège de France 1903– 04* |
| IT | *L'idée de temps. Cours au Collège de France 1901-02* |
| EP | *Écrits philosophiques* |

# **Part I** Dynamism & Process in Recent Thought

# *1*

## Debunking Flow: Reductive and Eliminative Accounts of Dynamic Passage

*Our experience of time, it seems, manifests a feature of 'flow' or 'dynamic passage'. The experience of change, Laurie Paul notes, has an "animated" feel (2010: 334), a feature which Donald Williams memorably characterized as the "jerk and whoosh of process" (1951: 465). The suggestion is that there is a qualitative aspect to the immediate experience of change and motion which is not describable as involving only a succession of distinct states or phases. And yet, a sequence of discrete states or phases is all there is to time's reality, according to the most widely-accepted view in the metaphysics of time: the B-theory. How can one who subscribes to the view (that is to say, a B-theorist of time) account for flow or dynamic passage?*

### Abstract

In this chapter, I argue that recent attempts on the part of B-theorists of time to address the manifest flow of temporal experience are unsuccessful. I consider Non-Veridicalist proposals from Le Poidevin, Paul, and Prosser, which affirm a pervasive dynamism in temporal experience, a feature which does not conform to the type of change on offer by the B-theory. I argue that these accounts fail to flesh out a coherent (Le Poidevin, Paul) and/or explanatorily adequate (Le Poidevin, Paul, Prosser) view of the experience of flow or dynamic passage. I examine Deng and Hoerl's Veridicalism, according to which there is nothing to temporal experience over and above the B-theoretic-friendly properties of succession,

simultaneity, and temporal intervals. Drawing upon phenomenological considerations, as well as a suggestion concerning the structure of spacetime, I claim that the Veridicalist proposal is unconvincing.

## Introduction

In this chapter, I examine recent contributions to a debate concerning the 'flowing' nature of our experience of change. Two contemporary trends merge into the debate: the dominance of the B-theory of time, and an increasing interest in the way an understanding of temporal experience fits with the metaphysics of time. According to the B-theory, the reality of time is given a complete description by what McTaggart (1908: 458) called the 'B-series' (hence the somewhat unhelpful name of the position), which comprises a series of times or events standing in unchanging precedence relations. Events are earlier (to a greater or lesser extent), co-occurent, or later (to a greater or lesser extent) than others. In the B-series, there is no ontological difference between all events on the series; they all exist in the same way. Even though time is one-dimensional, it is on this view at the very least analogous to space (Prosser 2016: 1, 11; Dainton 2010/2001: 7-9).[1] There is relatively wide agreement that the B-theory accords well with the view of time emerging from contemporary physics, on which events in the universe are part of an eternally existing four-dimensional space-time continuum (e.g., Deng 2018a: sec. 5; Prosser 2016: 17-9).[2]

It has been frequently noted that the B-theoretic position, taking up McTaggart's 'B-series' as exhaustingly descriptive of temporal reality, is strikingly at odds with some aspects of a common-sensical

[1] The B-theory, however, might also be able to accommodate aspects of temporal reality which seem to make time different than space. These include the fact that time can be understood as having a 'direction' in a way which space does not. We seem to require a notion of direction in order to explain, notably, causal and entropic asymmetries. For discussion of temporal asymmetries, see Dainton (2010/2001: Ch 4) and Callender (2017: Ch 6-8).

[2] There has also been, however, critical discussion of the idea that the B-theory best captures the insights from contemporary physics (e.g., Craig 2001, Zimmerman 2007).

understanding of time. A much-discussed feature of our engagement with time concerns the fact that we tend to assign a privileged place to the present moment in relation to other times. Surely, the thought goes, the present exists in a way in which the past or future do not. Moreover, events themselves seem to change in character: they become less future, present, and recede gradually into the past. McTaggart's 'A-series' (1908: 458) captures this idea. In this series, events are ordered in relation to a present moment, with other times more or less past, present, or more or less in the future. With the passage of time, the events in the series change their temporal properties: future events become less future, the future events become present, the present events become past, and the past events become more past. The view of time taking up the 'A-series' as a description of time is typically called the A-theory, or dynamic theory of time, of which there are a number of varieties.[3]

The sense that there is something unique about the present time has received extensive discussion, and is a topic of ongoing debate in the literature. The response to this idea on the part of B-theorists usually involves considering our experiences or notions as-of the present as perspectival. The present moment, on the B-theory, is just as ontologically privileged as the spatial *here* is. That is: it isn't. Both the *now* and the *here* are indexed to a point of view within the space-time 'block universe'. The B-theorist might add, however, that causal constraints and linguistic features might explain why we experience or consider the *now* as special (e.g., Prosser 2016: Ch 3; Callender 2008, 2017: Ch 9-10; Deng 2013b: sec. 2).

For our (present) purposes, there is an additional issue which seems to pit the B-theory against a widely-accepted understanding of temporal experience and its import. The debate, it is important to note,

[3] There are a few prominent versions of the A-theory. The three main varieties are 'presentism,' the 'growing block' view, and the 'moving spotlight' theory. See Dainton (2010/2001: Ch 6) and Skow (2015: Ch 3-6) for recent discussion of the different forms of the A-theory. Bergson is arguably an A-theorist of time in his works from the first decade of the 20th century onwards, but detailed engagement with the metaphysics of time, and Bergson's relation to the A-theory, lie beyond the scope of this research.

involves a restrictive notion of experience. What we're examining here is immediate or non-inferential perceptual experience, experience in a narrow sense of the term. Le Poidevin builds upon a frequently-cited example from Broad (1923: 351) in order to illustrate the relevant limitation:

> We are indirectly aware of the passage of time when we reflect on our memories, which present the world as it was, and so a contrast with how things are now. But much more immediately than this is seeing the second hand move around the clock, or hearing a succession of notes in a piece of music, or feeling a raindrop run down your neck. There is nothing inferential, it seems, about the perception of change and motion: it is simply given in experience. (Le Poidevin 2007: 87)

This limitation to immediate, or non-inferential experience distinguishes perception from instances of explicit recall and judgment, for example.[4] The relevant concern then comes up when we consider the way non-inferential experience of change is manifest, in relation to the B-theorist's account of change and motion. According to the B-theory, the reality of change and motion can only be described as what has been termed 'at-at' change. The term comes from Russell, who described motion as consisting "merely in the fact that bodies are sometimes in one place and sometimes in another, and that they are at intermediate places at intermediate times" (Russell 1917: 84). Applying this to change more generally: there is nothing more to change than an object being P at time $t_1$ and being Q at time $t_2$. "All there is to things moving or changing over time," Hoerl notes, "is for those things to occupy different spatial locations or have different intrinsic properties (of suitable kinds) at different times" (Hoerl 2014a: 188-9).[5] Change and motion as we experience them in a range of situations, however, are arguably something rather different. Many B-theorists and A-theorists alike ascribe a 'flowing' or 'dynamic' characteristic to our perceptual experiences

[4] I discuss the limitation to immediate or non-inferential experience further below (chapter 3, section 1, '*Durée as the 'Immediate Datum' of Experience'* sub-section), in relation to Bergson's view of change perception.

[5] As Prosser also notes, "according to the B-theory … [change] is merely 'at-at' change—that is, to say that object O changes from being F to being not-F is just to say that at time t1 O is F and at t2 O is not-F, in much the same way that a poker may be hot at one end and not hot at the other end" (2016: 10).

of movement and change. Paul, who subscribes to a B-theoretic view of time, describes the experience of change as having a 'flow-like' or 'animated' character (Paul 2010: 334-5). Prosser, also defending a B-theoretic position, claims that there is a lively, dynamic character to the immediate experience of change which is missing from the 'static block' view of time offered by the B-theory (Prosser 2016: 160). "Quite generally," Dainton observes, "experienced motion possesses an inherent dynamism that is hard to reconcile with the sequence of immobilities offered by the at-at theory" (2016: 6).[6] The experience of 'flow' or 'dynamic passage' captured by Paul's, Prosser's, and Dainton's comments, seems to be a pervasive feature of change perception.

Both aforementioned issues – our experience or conception of 'nowness' (whether inferential or non-inferential), and the non-inferential perception of flow or dynamic passage - fit into what theorists during the past decade have called the 'argument from experience,' which aims to provide support for a dynamic conception of time. If we focus only on the experience of flow or dynamic passage, the argument would go as follows:

> P1) We have perceptual experiences of (or: as of) flow or dynamic passage.
>
> P2) Any reasonable explanation of perceptual experiences of (or: as of) dynamic passage relies on dynamic passage being an objective feature of reality.
>
> Therefore:
>
> C) Dynamic passage is an objective feature of reality.

[6] A plethora of additional examples can be found in the literature. Williams provides an evocative description: "we *find* passage … we are immediately and poignantly involved in the jerk and whoosh of process, the felt flow of one moment into the next. Here is the focus of being. Here is the shore whence the youngster watches the golden mornings swing toward him like serried bright breakers from the ocean of the future. Here is the flood on which the oldster wakes in the night to shudder at its swollen black torrent cascading him into the abyss" (1951: 465-6). Schuster emphasizes "the simple but fundamental fact that the flow of time, or passage, as it is known, is given in experience, that it is as indubitable an aspect of our perception of the world as the sights and sounds that come in upon us, even though it is not the peculiar property of a special sense" (1986: 695).

(Deng 2017: 240; Baron et al. 2015: 561; Skow 2011; Le Poidevin 2007 : 76-7, 95 ; Paul 2010 : 338-9)

On this argument, we proceed from a feature of experience taken to be pervasive, suggesting that the reasonable explanation of this datum is to take dynamism to be an objective feature of reality.[7] B-theorists have increasingly focused their attention on ways to address and disarm this argument, and a number of insightful contributions have emerged. On behalf of the B-theorist, Paul writes: "It is absolutely essential for reductionists [i.e., B-theorists] to be able to provide [a] reasonable … explanation of why we have temporal experiences as of … [flow or dynamic] passage. Without such an explanation, we cannot claim to have provided a theory of time that satisfies some of our most central intuitions about our ordinary experience" (Paul 2010: 339). Such an account, on the part of the B-theorist, would overturn the dialectic proposed by the 'argument from experience,' whilst the failure to provide such an account can prove to be advantageous for the dynamic theorist of time, though other challenges - from science, logic, and metaphysics - await. A response such as Paul's however, accepting the dialectical challenge which comes up in virtue of taking up premise P1, is not the only one available to the B-theorist.

In what follows, I'll examine a number of recent contributions to the debate. Two ways to disarm the argument from a B-theoretic standpoint have crystalized: 'Non-Veridicalist' and 'Veridicalist' accounts. Non-Veridicalists (Le Poidevin 2007, Paul 2010, Prosser 2016) accept the first premise (acknowledging that we do in fact enjoy perceptual experiences of (or: as of) flow or dynamic passage), and argue against the second. They try to show that a B-theorist can offer a reasonable explanation of the phenomenon of flow or dynamic passage. Veridicalists (Deng 2013a, 2013b, 2017, 2019; Hoerl 2014a, 2014b) attack the first premise. We do not, they hold, have experiences of the kind described; there is no need to appeal to

[7] In a review of Prosser's *Experiencing Time*, Phillips (2016) cogently observes that the nature of experience is not the only motivation for the A-theorist, or dynamic theorist of time. Additional motivations include the intelligibility of change and a proper account of causation in physics.

anything but the materials provided by the B-theory itself in order to account for our experiences of change and motion.[8] I shall argue that, though instructive, both types of account are unsuccessful. They either fail to articulate a coherent and/or explanatorily adequate account of the experience of flow - in the case of Non-Veridicalist proposals - or do not do full justice to the phenomenology - in the case of Veridicalist views.

## **I** Le Poidevin's Projectivism

In *The Images of Time* (2007), Robin Le Poidevin explores various aspects of representation in relation to time - in our experiential lives, as well as in works of art and fiction. While various topics are taken up by Le Poidevin in largely independent manner, a central theme of the book is that the B-theory of time can successfully account for our diverse modes of temporal representation. The fifth chapter ('Projecting the Present: The Shock of the Now') approaches the challenge of providing a B-theoretic account of salient aspects of experience which are fodder for the A-theoretical cannon: the 'argument from experience,' which he presents in the opening of the chapter (2007: 76-7) in the form outlined above.[9] These aspects are, more specifically, those involved in the perceptual experiences of change and motion. "The most problematic data [for a B-theorist] to interpret," Le Poidevin writes, "concern the experience of succession: seeing a bird fly overhead, hearing a musical phrase, feeling the rain on one's face" (2007: 10). The type of experience I've called 'flow' or 'dynamic passage' is particularly striking: "we just *see* time

[8] I'm following Baron et al.'s (2015) distinction between two types of B-theoretic accounts of flow. The term 'Veridicalist' signifies a view on which immediate temporal experience comprises only the properties one would predict it to have given a B-theoretic view of time. Baron et al. use the term 'Illusionist' to signify the view I am labeling 'Non-Veridicalist'. Prosser (2018), however, has resisted the label (2018: 343). The term 'Non-Veridicalist' denotes views (such as Le Poidevin 2007, Paul 2010, Prosser 2016) on which there are aspects of immediate temporal experience proper understanding of which indicates a conflict with the B-theory.

[9] Le Poidevin also discusses the feature of 'nowness,' or the sense that the present moment is ontologically privileged, which I'm leaving aside in the present context.

passing in front of us, in the movement of a second hand around a clock, or the falling of sand through an hourglass, or indeed any motion or change at all" (2007: 76). The B-theorist should be worried about this phenomenon since, as we've seen, dynamic passage is not a feature of time's reality on her view. Le Poidevin's account, then, can be understood as a variety of Non-Veridicalism. It accepts premise P1 of the 'argument from experience' - we have perceptual experiences of (or: as of) flow or dynamic passage - and then attempts to show that a reasonable explanation of the phenomenon can be given within a B-theoretic context (thus arguing against P2: any reasonable explanation of perceptual experiences of (or: as of) dynamic passage relies on dynamic passage being an objective feature of reality).

The framework in which the proposal in the fifth chapter is couched, it is important to note, is a casual account of perception accommodating a criteria of reliability with regards to perceptual experience. In the second chapter of *The Images of Time*, Le Poidevin develops in significant length a representationalist causal account of perception, according to which the representations of objects and their features in perception are causally determined, usually in an appropriate manner . "Our perceptual systems," Le Poidevin plausibly notes, "have evolved through a process of natural selection which itself makes it highly likely that perceptual systems will be reliable" (2007: 28). Reliability here indicates that beliefs caused by our perceptual system have "a high probability of being true" (2008: 28). Perceptual experience is usually a solid basis for making true judgments about the world.

The suggestion concerning experiences of flow or dynamic passage is approached by looking for a way out of what Le Poidevin calls the 'phenomenological paradox'. The paradox is that we seem to immediately, or non-inferentially, perceive change and motion, but it is not clear how this is possible. This is because what we experience immediately is experienced as present, and the present is instantaneous. In motion and change perception we experience a succession of temporal parts of objects, or different positions of the object in space. But if the present is instantaneous, we can only immediately perceive events that are instantaneous. Other events of phases will be inferentially experienced as past (2007: 87). There might

seem to be an obvious escape route out of the paradox: the idea of the 'specious present'. On this proposal, our present is not limited to the instantaneous, it rather comprises a stretch of experienced (or clock) time.[10] Le Poidevin considers William James' characterization of the specious present as a prolonged experiential exposure, in which preceding phases of the change are experienced as 'fading' perceptions (James 1890a: 597-8). But James' idea does not, Le Poidevin suggests, allow us to accommodate the datum we are seeking to explain. Taking as an example the experience of two successive notes "we would, on hearing the second note, still be hearing, very faintly the first. This is not only false, but does not explain the sense of succession" (2007: 91). The suggestion is false since the idea of a 'fading' perception does not seem to characterize the phenomenology (i.e., we do not seem to faintly hear a past note while hearing the one present), and it does not explain our experience of succession since a faint image (e.g., an afterimage; 2007: 91) is experienced simply as present.

Le Poidevin's positive suggestion is that our sense of succession arises from a primitive mechanism which connects a present, instantaneous, perception with a very recent memory of another instantaneous perception, thus providing us with an impression of 'pure succession'.[11] The idea is drawn from Gregory's account of two mechanisms involved in the detection of motion: a motion-registering system, and a position-registering system, both originally posited as an explanation of the 'waterfall illusion' (Gregory 1966: 104-9).[12] The motion-registering system involves detecting changes in sensory stimulation (e.g., changes in retinal stimulation), while the position-registering system indicates the position of the tracked object, comparing it with other representations in memory. Le Poidevin's speculative proposal is to extend this as a general account of the perception of change and motion. The upshot of the motion-registering

[10] See also chapter 2, section 1 for further discussion of the specious present.

[11] Taking an example of the notes C-E in succession, Le Poidevin's proposal is that "the conjunction of the very recent memory of C with the perception of E gives rise to an experience of pure succession" (2007: 91).

[12] The waterfall illusion or motion aftereffect (noted as early as Aristotle) is the phenomenon which occurs when, after looking for a long time at continuous movement, we move our eyes towards a stationary object. The object will then look as if it is 'covered' by movement running in the opposite direction to the motion previously experienced.

system, in particular, is that which allows us a sense of dynamic passage. 'Pure succession' is the experiential material of our pervasive experiences of flow.[13] What we have thus far, however, does not seem to amount to an explanation of 'pure succession' as an aspect of *immediate* or non-inferential experience. We have only the basis of an understanding of the impression of dynamic passage as *related* to immediate perceptual experience, arising as a result of comparisons between present experiences and the memories of past stages.

The account of flow or dynamic passage as a feature of immediate experience is then completed through Le Poidevin's 'Projectivist' claim regarding perceptual experience: the property of flow or dynamic passage is constructed by our perceptual system.[14] This suggestion concerning the phenomenon of flow is part of a more general proposal regarding our perception of change and motion, to the effect that "A-theoretic properties are not in the world, but are projected on to the world in response to certain features of our experience" (2007: 95). The Projectivist proposal rests on two experimental findings briefly discussed in the section. The first comes from an influential theory of motion perception originating in Helmholtz, which shows that we (at least partially) interpret visual information rather than merely register it. On the proposal (the precise terms of which have been superseded in contemporary work on

[13] Phillips (2009: 442) convincingly argues that Le Poidevin need not have adopted two assumptions that leads him into the 'phenomenological paradox' in the first place: that (i) succession needs to be experienced at one moment to be experienced, and that (ii) perception is instantaneous. Without these assumption, Phillips suggests, Le Poidevin could have adopted the idea that experience itself unfolds over time (the idea at the heart of the Process View of temporal experience; see my discussion in chapters 2 and 3 of the present research). It is important to note that this would also mean that the mechanism of 'pure succession' becomes redundant in this case, and thus we would not be able to recover that which explains the "most problematic data" for the B-theorist. Without the limitation to the instantaneous present, Le Poidevin's account would not possess the resources to explain why immediate temporal experience should include more than 'at-at' change and motion. In the context of my present discussion, I am granting Le Poidevin the two assumptions leading us to the 'phenomenological paradox'.

[14] Phillips (2009: 443) expresses concerns regarding the necessity of the move which follows positing the mechanism inducing the impression of 'pure succession,' as it might seem that the notion of 'pure succession' can do all the work in explaining the data a B-theorist finds problematic, e.g. the phenomenon of flow or dynamic passage. Le Poidevin might need the 'Projectivist' move, however, since the experience of 'pure succession' is not itself part of immediate or non-inferential perceptual experience, though closely connected to it through the comparison between memory and perception. That which is required besides the account of 'pure succession,' then, is an explanation for why we take the detection of the connection between memory and perception as a ubiquitous feature of immediate perceptual experience.

perception[15]) the visual system involves coordination between the 'eye-head system' and the 'image-retina' system. When we move our eyes across a scene, for example, we do not see the scene as moving, since vision involves constant coordination between the two systems. But this coordination can be thwarted in various situations. If our eyes are gently pressed, for example, we register movement despite there being none present. In experiments in which our eyes are prevented from moving, to take another example, an attempt to move them will generate the experience of motion. These are cases in which, according to Le Poidevin, perception involves a 'projection' or active interpretation of the mind in perception (2007: 93).

The second finding presented by Le Poidevin in support of the Projectivist claim is the 'flash-lag' effect (McKay 1958, Nijhawan 1994, Eagleman and Sejnowski 2000). The experimental scenario in this case presents subjects with a dot moving across a screen, with another dot appearing (in a punctate 'flash') above or below the first dot during its transit. Many subjects view the moving (first) dot as situated ahead of the second dot instead of at its actual location, thus the 'flash' is perceived as 'lagging' behind the illusory place in which the first (moving) dot is perceived. Le Poidevin does not attempt to adjudicate between two competing explanations of the illusion - the predictive model (Nijhawan 1994), and the post-dictive account (Eagleman and Sejnowski 2000). The conclusion he would like to draw from this finding, as with regards to the Helmholtzian account of vision, is that there a component of perception which is constructed or 'projected' by the mind (2007: 95).

The suggestion with regards to the perceptual phenomenon of flow or dynamic passage is, then, that an impression of 'pure succession,' the causal upshot of a motion-registering mechanism, is 'projected' or constructed as a component of immediate perceptual experience.

[15] As noted by Phillips (2009: 443), the neuropsychological account of vision from Helmholtz can be updated by considerations presented in, e.g., Wertheim (1994, 1999). There is, on this recent account, a 'reference signal' which evaluates information originating in retinal images. The process of evaluation allows the distinction between eye-movement and object-movement.

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At this stage, I would like to suggest, we can take a step back from the details of Le Poidevin's account of dynamic passage for a moment and turn to consider three layers of critical scrutiny that could pertain to a Non-Veridicalist view (such as Le Poidevin's). The first is a rather straightforward concern with regards to (i) the systematic coherence of the view: we would want to see that the claims the Non-Veridicalist makes about the general features of perceptual experience, for example, fit with her account of dynamic passage.

The second issue involves a particular question about an account which outlines a pervasive illusion in our perceptual experience. Hoerl addresses this issue in discussing what he calls the 'intelligibility problem,' building upon Stroud's (2007: Ch 7) discussion of dialectical difficulties facing an error theory. Non-Veridicalists - e.g., Le Poidevin, Paul, and Prosser - hold that we enjoy robust and pervasive perceptual experiences of flow or dynamic passage, without these experience involving the detection of real dynamic change as a mind-independent feature. Time itself, on the B-theorical view they espouse, does not flow or dynamically pass. The Non-Veridicalist view, then, takes it that our perceptual experience involves a sort of systematic illusion, insofar as flow or dynamic passage is manifest as a feature of the events we perceive. The concern raised by Hoerl about the Non-Veridicalist proposal is that is it not clear we can make sense of the idea of dynamic passage in a world devoid of it, and we thus cannot make sense of the idea of there being an *illusion* concerning dynamic passage (Hoerl 2014a: 190).[16] The point is *prima facie* compelling. How can we appreciate the fact that we have a systematic illusion with regards to the property of flow or dynamic passage, if we haven't actually encountered this property? There seems to be

[16] As Hoerl puts it, "[a]ccording to the [Non-Veridicalist] there is no such thing as passage; yet temporal experience is meant to involve the seeming presentation of passage. But how exactly are we to make it intelligible to ourselves what the latter is meant to come to? If there is really no such thing as the property of undergoing passage, how can we have any idea of what it would be for there to be perceptual illusions as of something having that property? Thus, it is not clear whether an error theory regarding temporal experience of the type proposed is coherent. Call this the intelligibility problem." (2014a: 190).

a basic problem with regards to the coherence of a view which posits a pervasive illusion in perceptual experience.

The way in which the problem is framed by Hoerl, however, seems to somewhat neglect a crucial difference Non-Veridicalists might want to emphasize. The Non-Veridicalist says that there is a mind-dependent experience of (or: as of) dynamic passage, while there is in fact no such thing as dynamic passage in the mind-independent physical world. It could well be that we can find out about the two in different ways, which would then allow us to appreciate the way in which experience might involve a pervasive illusion. For example, we might think that physics teaches us that that time as mind-independent does not possess a feature of flow or dynamic passage, whilst temporal experience manifests this feature. We could then, by comparing that which physics teaches us with the intimations of immediate experience, have an idea of there being a pervasive illusion concerning dynamic passage. What would we need to make such a proposal coherent? One thing that the Non-Veridicalist should be doing is providing us with a compelling account of the production, or 'construction' of dynamic passage in a way which *does not presuppose it as feature of mind-independent reality* (e.g., something flow-like in our brains or perceptual system). I'll call a sensitivity to this issue the (ii) pervasive illusion concern.

This kind of worry regarding coherence should not, I would like to suggest, close the door in advance on the possibility that a Non-Veridicalist might provide a successful account of the experience of dynamic passage, as Hoerl's discussion of the 'intelligibility problem' might suggest. The pervasive illusion concern then makes room for a third level of critical scrutiny. Does the Non-Veridicalist proposal involve a successful description of the mechanism/s which produce/s the experience of dynamic passage? The (i) systematic coherence worry, and the (ii) pervasive illusion concern are then coupled with that of (iii) explanatory adequacy.

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Now, let's get back to Le Poidevin's Non-Veridicalist account of dynamic passage. One problem with the account is that it does not appear to successfully address the concern regarding (i) systematic coherence. As I've noted, on Le Poidevin's position our perceptual system is understood as reliable, which is to say that beliefs originating in perceptual experience have a high probability of being true. This plausible suggestion seems to be at odds with the fact that the experience of dynamic passage is understood by Le Poidevin as a ubiquitous feature of perceptual experience ("we just *see* time passing in front of us, in the movement of a second hand around a clock, or the falling of sand through an hourglass, or indeed any motion or change at all"; 2007: 76). The suggestion that perceptual experience pervasively manifests flow or dynamic passage - an aspect which does not accurately represent the mind-independent nature of time - does not seem to fit with the claim regarding its reliability. One could perhaps claim that an understanding of flow or dynamic passage as part of a 'second-order' phenomenology, an aspect which arises as the result of lower-level represented features which are veridical, might be of help (see discussion of Prosser's view below). But as framed in *The Images of Time*, there appears to be a tension between the way perceptual experience is generally conceived and the account of dynamic passage.

Le Poidevin does not seem to presuppose the existence of flow as a feature of the mind-independent world, and thus (ii) - the pervasive illusion concern - does not appear to straightforwardly apply to his account. The sense of dynamic passage, Le Poidevin's 'pure succession,' is the upshot of a motion-registering system, of a mechanism which picks up on changes in stimulation. A question which can be brought up in relation to this idea, however, is the following one: why would a mechanism which detects changes in stimulation – which, as part of the physical world, should be B-theoretic in nature on Le Poidevin's view – represent a temporal feature which is not only absent from the B-theory, but is also radically *at odds* with a B-theoretic understanding of time? This returns us to the first worry. There does not seem to be a good reason to suppose that the perceptual system should cause the manifestation of a feature which systematically misleads us about the nature of temporal reality. We might try to suggest that changes in

stimulation – e.g., changes in retinal patterns - themselves possess the feature of flow or dynamic passage, but then we would be in the remit of what I called the (ii) pervasive illusion worry. It would mean that we are accounting for flow or dynamic passage by presupposing the feature we are trying to explain as a feature of time's reality.

As we've seen, the detection of 'pure succession' in itself is not enough, on Le Poidevin's account, in order to account for our experience of flow. The connection between a recent memory and a present perception, which purportedly gives rise to an impression of flow or dynamic passage, is then 'projected' upon our immediate experience of change. The analogy Le Poidevin draws with Helmholtz's account of visual perception, however, does not seem to contribute directly to his proposal regarding the 'construction' of the property of dynamic passage. As Deng (2013b: 722) and Phillips (2009: 443-4) argue, the mechanisms Le Poidevin outlines (the proposal from Helmholtz, in particular) subserve *normal* vision, and Le Poidevin has not claimed or shown that there is a pervasive aspect of illusion in vision. It seems that Le Poidevin would at least tend to agree (2007: 94-5). More directly relevant, perhaps, is the analogy with the 'flash-lag' effect. Our perception of the temporal order of events can be seen as caused, at least in part, by post-dictive (Eagleman and Sejnowski 2000) or predictive (Nijhawan 1994) mechanisms, which misrepresent the temporal order of mind-independent features. This makes the suggestion with regards to the 'projection' of dynamic passage more plausible, but the 'flash lag' case does not single out temporal flow as that which is 'projected' or constructed. It suggests, at most, a possible route for an explanation, to be filled in by additional accounts. Explanatory adequacy, it seems, has not been achieved.

While Le Poidevin's Projectivist account does not (straightforwardly) fall prey to the (ii) pervasive illusion worry, and the comparison with the 'flash-lag' effect is suggestive, it seems that we are left with concerns regarding (i) systematic coherence and (iii) explanatory adequacy.

## **II** Paul: Illusions of Apparent Motion

I've shown that Le Poidevin's account, despite facing a number of systematic challenges, highlights factors hinting at the idea that perception involves the active adjustment of stimuli. His view, however, does not point out cases in which this adjustment has to do specifically with the experience of flow or dynamic passage ('pure succession,' on his position). It is this desideratum which is addressed in substantial detail in Paul's 'Temporal Experience'. In this section, I will argue that her influential Non-Veridicalist account, while developing new and instructive angles on the experience of dynamic passage, does not satisfyingly answer to worries concerning coherence and explanatory adequacy.

'Temporal Experience' sets up a powerful challenge for the B-theorist, Paul's 'reductionist,' by outlining the central role and the character of the experience involved in everyday instances of change and motion. The experience of change, Paul stresses, is central to our subjective perspective, to the way we define ourselves. "Our temporal experience is caught up with our sense of being, that is, our sense of what we are and how we are".[17] What does this experience involve? A central aspect is what I've called flow or dynamic passage. Paul homes in on the way dynamic passage is made manifest to us - its 'what-it's-like' (Nagel 1974) character - by citing Donald William's characterization of being "immediately and poignantly involved in the jerk and whoosh of process, the felt flow of one moment into the next" (Williams 1951: 465-6), adding that change has an "animated" feel or character to it (2010: 334, 335, 344, 345, 346, 351, 352, 356, 358).[18] Our pervasive experiences of change exhibit dynamic, animated characteristics which

[17] Consider, also: "Our conception of ourselves as beings caught up in the ebb and flow of time is historically, aesthetically, linguistically, and psychologically important to us and so must be accommodated by any adequate philosophical account of time" (2010: 338).

[18] "As the leaf turns from crisp to wilted or one's coffee cools from hot to lukewarm, we do seem to observe a change of properties in an animated way" (2010: 346). Paul considers the experience of flow or dynamic passage in tandem with experiences of 'nowness,' which I am leaving out of my discussion of her view.

exceed the features available on the B-theory's view of the mind-independent world.[19] We then have in place premise P1 of the 'argument from experience' (we have perceptual experiences of (or: as of) flow or dynamic passage). In the absence of an account of the experience of flow which works with a B-theoretical tool-box, the dynamic theorist would be "perfectly justified in taking our experience as of nowness and passage seriously enough to infer the real existence of nowness and passage" (2010: 338). He would be justified in helping himself to premise P2 (any reasonable explanation of perceptual experiences of (or: as of) dynamic passage relies on dynamic passage being an objective feature of reality) of the 'argument from experience' and thus to its conclusion (flow or dynamic passage is an objective features of reality). The challenge Paul takes up involves, as Le Poidevin's view does, pursuing the Non-Veridicalist strategy of accepting P1 and arguing against P2.

How can a B-theorist account for the experience of dynamic passage, on Paul's view? Two theoretical starting points for her account of perceptual experience should be noted in this context. First, phenomenal characters are couched in terms of a causal relation to the physical world. The experiences of phenomenal properties, e.g., redness, are caused by relevant physical properties from which dynamism is absent (2010: 337). Second, the view is framed in terms of a physicalist assumption: conscious experience is reducible to the having of neural states (2010: 343, 351).

As we've seen, Le Poidevin suggests that there is an active interpretational element to our perceptual experience, but does not identify a contribution directly related to dynamic passage. Paul invites us to consider cases where it is dynamism that our perceptual system is actively adding to inputs which in themselves do not exhibit a flow-like character.

[19] Change, on the reductionist's account, involves (in a highly simplified scenario) object O having property P at $t_1$ and property Q at $t_2$, while the experience of dynamic passage involves a transition, or flow between states which has an 'animated' qualitative feel (2010: 335).

The relevant cases involve a range of 'apparent motion' phenomena. There are numerous cases associated with the label, many of which should be familiar from everyday life. What unites all of these is that we are presented with a series of static stimuli in more or less rapid succession, with the result being a perception of movement.[20] In the particular experimental situations Paul focuses on - phi-motion and colour-phi phenomena - the stimuli involve a successive presentation of two or more dots in different (and relatively proximal) positions on a screen. As the frequency of the stimuli crosses a certain threshold, the experience switches from a perception of a succession of signals to the perception of smooth movement, also known as 'optimal motion'. The central case for Paul's position in the paper is the 'colour-phi' experiment (Kolers and Grünau 1976), conducted in response to a question by Nelson Goodman. In this experiment, subjects are presented with two dots of differing colours flashing successively on different sides of the screen. Shown at a suitable rate, and with a proper distance between the dots, a movement between the dots is manifest, during which the colour also seems to shift during the trajectory.[21] The take-home message from a variety of 'apparent motion' phenomena, according to Paul, is that "it is an experimentally documented fact that we have the illusion of motion when presented with a series of appropriately related static images and that our best data indicate that the brain plays an important interpretative role in representing the animated effects we experience" (2010: 350).

While Paul does not place significant weight on the question as to *why* we experience 'animated effects,' or dynamic passage in these cases, the answer which emerges from a number of sections in 'Temporal Experience' is that we experience an illusory sense of flow as a result of the brain's/perceptual system's need to accommodate the contrast between distinct temporal stages of qualitatively identical objects

[20] The earliest recorded examples are the phénakisticope (or fantascope) from the 1830's, the zoetrope from the 1860's, the flip book originating in the 1860's, and early experimental versions of motion pictures from the late 1870's. In 'Temporal Experience,' besides phi-motion and colour-phi phenomena, Paul mentions films, flip-books, computer screens, and time-lapse photography (2010: 348, 350).

[21] If the objects are red and green, for example, "the brain represents the situation as though there is an animated qualitative change in a dot from red to green, and this representation is as of an animated, qualitative change that is no different in character from other sorts of visual experiences as of change that we normally have as part of everyday experience" (2010: 351).

(2010: 352). Looking further at the details of the account, there seem to be two relevant levels to the production of the phenomenon: (i) we perceive a single object moving (or: moving and changing), and (ii) we perceive the change as having an 'animated' characteristic. Paul observes:

> Fix in your mind what happens with our sample case of apparent motion created by the computer: our experience as of motion arises when the brain receives a series of inputs from an ordered set of events at closely located spatiotemporal positions, where the source of each input has a different spatiotemporal location from the one prior to it in the ordering. In the experiment, two things happen. First, the brain responds by somehow managing these inputs to create the impression that a persisting dot is moving back and forth between different spatiotemporal locations. Second, the brain's response also creates the impression that the change is continuous—that is, it creates the impression that the dot moves across the screen by moving smoothly and continuously from one side of the screen to the other. (2010: 350)

The phenomenology of 'animation' or flow, then, is added in these cases to stimuli which involve only temporal stages. The visual system 'fills-in' a sense of dynamism which does not exist in the input. Paul stresses, however, that there is no experiential 'figment,' to use Dennett's suggestion – there is no perceptual 'filling-in,' only the cognitive impression of 'filling-in' (2010: 352).

The argument brought up in relation to these cases is that in 'apparent motion' we have the very same perceptual experience of dynamic, or 'animated,' change as we enjoy in the presence of motion and change more generally. The dynamic experience in the 'apparent motion' cases involves an illusion: the visual system accommodates the contrasts between the stages – contrasts between different spatiotemporal locations of a qualitatively identical object - and creates the sense of flow, which is non-existent in the stimuli. And we can plausibly generalize this, according to Paul, to our pervasive experiences of dynamic change. As in the apparent motion cases, we are here also dealing with our perceptual system creating an illusion of flow, prior to the representational state, out of a succession of distinct temporal stages.

Dynamism is a "cognitive reaction to the successive replacement of suitably intrinsic properties" (2010: 346).

The result is that premise P2 of the argument from experience (any reasonable explanation of perceptual experiences of (or: as of) dynamic passage relies on dynamic passage being an objective feature of reality) is undermined. The B-theorist has offered at least the framework for an account of the experience of dynamic passage. If the argument is successful, the A-theorist or dynamic theorist is not on better ground with regards to the experience of dynamic passage, and the discussion of the merits or disadvantages of the metaphysical views on time can move to the scientific, logical, and linguistic arenas, in which the B-theory might appear to possess advantages.

We have thus purportedly taken the bite out of the dynamic theorist's insistence that we would need real dynamism in order to account for dynamic experience. The experience of dynamic passage is "part of an overall phenomenological experience and nothing more" (2010: 341).

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Now, does the proposal work? Paul's discussion of the dialectical situation with regards to the perception of change, and of its role in our lives, make a great deal of intuitive sense. While there is still much work to be done in order to draw out the broader implications of claims regarding the nature of temporal experience, it is reasonable to think that a sense of time's passage figures centrally in our self-understanding.[22] The detailed discussion of the cases of 'apparent motion,' as illusions involving a sense of dynamism, is illuminating, and has befittingly been widely discussed since the paper's publication. There are, however, a number of worries which might arise.

[22] Aspects of the way temporal experience figures in our self-understanding will be explored in the fifth chapter, which comprises discussion of the temporal profile of experiences of creative agency.

While discussing Le Poidevin's view, I noted three layers of critical scrutiny which could apply to a Non-Veridicalist position. The first involved systematic coherence – whether the general account of perception offered by the Non-Veridicalist works with the proposal regarding the experience of dynamic passage. Does this concern arise with regards to Paul's account? On her view, phenomenal characters are caused by the relevant physical properties. Though she does not discuss general constraints with regards to the reliability of perceptual experience (as Le Poidevin does), we can help ourselves to the plausible assumption that reliability – i.e., that beliefs deriving from perceptual experience have a high probability of being true - does in fact hold for perceptual experience. A criticism similar to the one expressed in relation to Le Poidevin's view would then seem to apply: it does not appear that a view of perceptual experience as generally reliable can work with an understanding of our perception of change being the basis of a pervasive illusion with regards to flow or dynamic passage.

We can attempt to provide a response to this concern in the context of Paul's particular claims regarding the nature of our sense of flow, or 'animated' change. In line with Dennett's suggestion, there is on Paul's view no perceptual 'figment' of dynamic passage in experience, only an impression of 'filling in'. The impression of flow can then be understood as a cognitive reaction to the replacement of properties (2010: 346), as part of a higher-level phenomenology rather than as on a par with aspects of perceptual experience (e.g., colour or shape properties) to which reliability seems to directly apply. This might seem to assuage the concern regarding systematic coherence. We can ask, however, whether the suggestion concerning a cognitive impression of 'filling-in,' building upon Dennett's view, can successfully apply to this case. The main examples regarding situations in which our cognitive system allegedly 'fills in' information involve the retinal blind-spot, and a range of natural and artificial scotomata – areas of diminished acuity. A traditional explanation of these cases would be that our visual system is producing experiences similar to that of adjacent stimuli. Dennett's influential proposal on the matter is meant to provide a more economical explanation: we literally *do not* perceptually experience anything in the blind-spot, we only

*believe* that we do, in virtue of our ignorance regarding the lack of perceptual information. The visual system does not flag the fact of there being a blind-spot (Dennett 1992: 33-49). Applying this idea of a cognitive impression of 'filling-in' to cases of experiencing dynamic passage or flow implies that we only *believe* we perceptually experience dynamic change, but we in fact do not (as noted by Dainton 2012: 146). This seems phenomenologically implausible. It is difficult to generalize the point regarding scotomata to pervasive aspects of our experience, in which there is optimal visual acuity. Scotomata seem to be isolated instances which it might make sense for us to ignore (though the proposal is also here controversial), in contrast with the experience of dynamic passage, which seems to be a ubiquitous feature of our perception of change. The analogy with cases discussed by Dennett does not seem to assist with the successful articulation of an account of 'animated' change. The problem of systematic coherence has not been solved.

This concern, however, could arguably be addressed if the view can be understood as providing a satisfying account of the mechanism which brings about our impression of flow. We would then have the description of a mechanism which can explain the cognitive impression of 'animated' change as a higher-order feature of experience, rather than a case analogous to the blind-spot (and additional scotomata). But it does not seem that such a mechanism has been successfully described. The question which can be brought up concerning Paul's proposal is the following one: why would the perceptual system need to add a dynamic, 'animated,' characteristic to our experience in order to manage or accommodate contrasting stimuli?

The perception of dynamism, as we've seen, comes in at the second of (at least) two levels involved in the accommodation of contrasting inputs to the perceptual system: (i) the creation of an impression of a persisting object, rather than the successive temporal phases which serve as the inputs to the system; and (ii) the impression of the change being 'animated,' which comprises the smooth continuity of the experience. Let us grant that perceiving a single object conforms to a need of organizing contrasting inputs,

even though why this is the case has not been argued for.[23] The perceived object is then correlated with a collection, or a unified succession of distinct temporal stages. But to what *extra* need, one which has not been fulfilled by the perception of the unified persisting object going through temporal stages, might the experience of dynamic passage conform to? This remains something of a mystery on Paul's account. It does not seem to be clear why we would need an additional impression of flow or dynamic passage, over-and-above the organization of inputs afforded by impression of a persisting object, in order to accommodate contrasting stimuli.

It could perhaps be suggested here that the impression of 'animated' change is meant to fill in *gaps* between different temporal stages of objects. But there seems to be no reason to think that input to the perceptual system generally involves (significantly) 'gappy' perceptions of objects. There are arguably cases of 'apparent motion' in which the stimulus appears to be gappy in comparison with other cases of motion perception, and there are also cases of 'apparent motion' which are manifest as smoothly continuous (i.e., cases manifesting 'optimal' motion), whilst (in the latter cases) stimuli to the perceptual system is itself (slightly) gappy. We might be able to grant that stimuli to the visual system, in general, are not smoothly continuous (see next section of this chapter for further discussion). But there does not seem to be reason to suppose that the inputs are generally gappy in a way relevant to the management or accommodation of contrasting stimuli. Even if we posit a world in which all perceptual input is (insignificantly) gappy,[24] this does not seem to be a world in which contrasting stages would need to be further managed or accommodated, beyond the stages being perceived as belonging to unified objects. There could perhaps be *another* principle at work in creating a sense of smooth continuity out of (insignificantly) gappy input, but it does not seem to be that of the accommodation or management of contrasting stimuli. The first level

[23] This idea has a key place in Prosser's (2016) proposal, examined below.

[24] Provided that this gappyness is experienced against the background of some sort of experiential gapless continuity.

of processing posited by Paul seems to do all the necessary work of managing contrasts between different spatio-temporal phases.

Paul's suggestion with regards to the illusion of dynamic passage - as is the case with Le Poidevin's Projectivism - fails to attain (i) systematic coherence, and does not seem to successfully (iii) describe a mechanism which would be the causal source of our sense of dynamic passage in temporal experience.[25]

## **III** Deng and Hoerl: A Veridicalist Response?

At this point in the dialectic, we can recall Hoerl's 'intelligibility problem,' noted above (see section 1). It is not clear that we can make sense of an illusion concerning dynamic passage in a flow-less B-theoretic universe. I've suggested that the Non-Veridicalist might have ways to get around this worry, and attempt to provide a coherent and explanatorily adequate view of dynamic passage. But the worry, in Hoerl's discussion, is tied to the suggestion that there is in fact nothing to make sense of. This is the essence of the 'Veridicalist' angle on the debate regarding the experience of dynamic passage, articulated in Natalja Deng's (2013a, 2013b, 2017, 2019) and Christoph Hoerl's (2014a, 2014b) recent publications. There is nothing more to change and motion than Russell's 'at-at' change and motion, and the same applies to the *experience* of change and motion: a succession of temporal stages or spatio-temporal locations constitute the only relevant datum for an understanding of immediate temporal experience.

This would mean that all the materials the B-theorist needs in order to frame a cogent account of change perception are already in her possession. As Hoerl puts it, "[a]spects of perceptual experience that we are

[25] The (ii) pervasive illusion concern does not seem to come up in relation to Paul's view. We might be worried about the idea of dynamic passage being reducible to the having of neural states (2010: 343, 351), but the proposal incorporates the idea that 'animated' change is a causal upshot of neural processes, rather than a feature of the neural processes themselves.

prone to describe in passage-implying terminology … actually present us with a world that is just as the B-theory has it" (2014b: 93). In all cases of non-illusory motion what is seen is "variation over time in a thing's location and other properties" (2014a: 197).[26] Perceiving the movement of a ball, hearing a musical phrase, feeling the rain on one's face - phenomena which allegedly manifest flow or dynamic passage - "do not conflict with a single B-theoretic tenet" (Deng 2013b: 722); they involve a succession of temporal stages, or "one event .. happening after the other" (Deng 2019: 11). The Veridicalist, then, argues against the first premise of the aforementioned 'argument from illusion' (we have perceptual experiences of (or: as of) flow or dynamic passage), undermining the need for P2 (any reasonable explanation of perceptual experiences of (or: as of) dynamic passage relies on dynamic passage being an objective feature of reality).

Deng and Hoerl both note that at least some of the motivation for the Non-Veridicalist's account of dynamic passage comes from the thought that smooth, seamless continuity might seem to be lacking on a B-theoretic view of time's reality. Paul's discussion of the cases of 'apparent motion,' for example, makes an analogy between the discontinuous presentations of the dots on the screen resulting in (the illusion of) continuous motion, and an alleged discontinuity in the world as described by the B-theory (e.g., in taking the second level of stimuli-accommodation generally understood to be analogous to the second level of the process described with regards to cases of 'apparent motion,' which comprises creating "the impression that the change is continuous .. the impression [, in 'apparent motion' cases,] that the dot moves across the screen by moving smoothly and continuously from one side of the screen to the other"; Paul 2010: 350). But the analogy, Deng and Hoerl suggest, does not hold. The universe of the B-theorist,

[26] Cases of 'apparent motion' can also be given an explanation, according to Hoerl, without any temporal properties over-and-above the (B-theoretic-friendly) terms of succession, simultaneity, and temporal intervals. "The dots in the colour-phi case," Hoerl suggests, "appear to be continuously varying over time when they are in fact only in discrete locations; there appears a persisting object when there are only brief stimuli; successive change in colour appears instead of a gap between two differently coloured dots" (2014a: 192 ). As I note in the next page, on Hoerl's (and Deng's) view the B-theory can accommodate smooth continuity.

consisting of temporal stages, is not static in the same sense as the stimuli generating the illusion in apparent motion cases are. According to Deng, "the block universe needn't have any gaps … there are in the block universe no static inputs for our brain in the way that there are static images in films, or in the colour phi experiment" (Deng 2017: 244; see also Hoerl 2014b: 93). The Veridicalist suggestion is that there is no gulf, continuity-wise, between B-theoretic temporal reality and change as we perceive it.

*

The Veridicalist view of dynamic passage might seem to make things a lot easier for the B-theorist. The idea of there being no such thing as 'dynamic passage' or 'flow,' over-and-above the properties of succession, intervals, and simultaneity, liberates her from the arduous task of accounting for the sources of a pervasive illusion in perceptual experience. The way temporal properties are made manifest in immediate experience conforms to the description she provides of time's reality. But we are left with a puzzle: why has it seemed to so many thinkers that there is something in our temporal experience which indicates conflict with the B-theory?[27] The Veridicalist can be seen as raising an interesting challenge for the Non-Veridicalist, motivating her to mark out precisely the kind of tension with the B-theory that P1 (we have perceptual experiences of (or: as of) flow or dynamic passage) involves.

[27] The Veridicalist proposal, in Hoerl's work, is bolstered by a dialectical move which involves explaining why a Non-Veridicalist might erroneously take there to be such a feature as dynamic passage. Hoerl diagnoses the error by suggesting that it is the result of misconstruing of a salient difference in experience. Broad's (1923: 351) influential example highlights the relevant difference: we directly, or immediately see the second hand of the clock move, but we cannot in the same way see the hour hand move. The hour hand's movement is too slow for us to pick up on, though we can check it periodically and conclude, or infer, that it has indeed moved in virtue of our recollection of the preceding positions. The distinction between two types of awareness – immediate and inferential – might allow, Hoerl suggests, to account for the error the Non-Veridicalist commits with regards to dynamic passage. According to Hoerl, we might think that the difference between the direct and the inferential implies that direct awareness of change itself has two layers: (i) immediate awareness of change, and (ii) immediate awareness of a further 'animated' quality. We conflate "between the *correct* thought that only some changes can be perceptually experienced (others being too slow to be perceived), and the *incorrect* thought that some perceptual experiences involve not just an awareness of change, but that the change in question is itself experienced to have some special further ('animated' or 'flow-like') quality" (Hoerl 2014a: 196). As Prosser notes, this does not seem to be plausible (2016: 185). It is not clear why we would misapply the distinction, and why or how this misconstrual would take on the form proposed.

At least two facets, I'd like to suggest, can be understood as working together to motivate the thought of there being a conflict between the immediate experience of change and a B-theoretic view of time. Both are aspects of the *continuity* involved in temporal experience. The first has to do with seamless, or smooth continuity. It seems that part of what we have in mind when accounting for the experience of dynamic change is that we experience changes and motions as gapless (as we've seen with regards to Paul's view; Paul 2010: 350). Hoerl and Deng, by contrast, suggest that the block universe, the world of the B-theorist, is not in fact 'gappy'. On their view, the B-theory's account of temporal reality does not lie in conflict with the gaplessness claim regarding change perception.

The idea that the B-theoretic universe – the 'block universe' as standardly conceived by contemporary physics - is continuous in a way which conforms to experiential continuity, however, at least somewhat questionable. Contemporary physics is generally framed in terms of an understanding of space-time guided by modern mathematics: the spatio-temporal continuum as commonly understood exhibits one-to-one correspondence with the real number continuum. The real number continuum has the property of 'denseness,' which means that between any two points on the continuum there is always another point. This property makes the continuum gap-free in a sense: every gap we might try to locate in the continuum has *additional* (dimensionless) points in it. But does this notion of gaplessness map onto the understanding we have of *temporal experience* being seamlessly continuous, or gap-free? This does not necessarily seem to be the case. The dimensionless points on the real number continuum do not make *direct* contact with one another. As Bergson famously noted, the mathematical-physical understanding of time breaks it down into a "dust of moments [poussière de moments]" (CM 219-20). The points on the mathematical continuum are not immediately connected, and thus lack the kind of "uninterrupted

solidarity of the before and after" (DS 50) which is manifest in non-inferential temporal experience.[28] This thought was shared by other eminent philosophers, mathematicians, and physicists, as noted by Dainton:

> In our ordinary perceptual experience – for example, of smooth spatially extended expanses of colour, or temporally extended sounds or tones – we find plenty of examples of continua that are (seemingly) wholly gap-free and seamless, where the adjacent parts of phases are welded together, as it were, to form a unified plenum. By virtue of its point-structure and density, the orthodox continuum does not and cannot possess anything resembling this sort of unity, and for this reason – at least in the eyes of Bergson, Brentano, Poincaré, Weyl, Whitehead and others – it falls short of possessing authentic continuity. (2010/2001: 302)

It is not clear that the spatio-temporal continuum as conceived by modern mathematics and physics, with regards to which the idea of gaplessness is cashed out in terms of an infinitely divisible structure of dimensionless points, conforms to the way gapless continuity shows up in experience.[29]

Regardless of whether smooth continuity can be extracted from the B-theory's description of temporal reality, there is an additional aspect of the continuity manifest in change perception which indicates trouble for the B-theory. To anticipate my discussion in the third chapter (see chapter 3, section 1, '*Durée*' subsection), it might seem plausible to think that what we mean by 'dynamic passage' or 'flow' is not only smooth continuity, but an experience which also involves a *sui generis* property of *continuous transition* or *progression.* Why would we think this? One way to approach the thought is to compare the kind of continuity manifest in the perception of spatial arrays, on the one hand, and the continuity manifest in temporal experiences, e.g., in cases of listening to a melody, on the other. The perception of spatial arrays, arguably, manifests smooth continuity. When considered at a level of abstraction which goes beyond

[28] See chapter 3 for extensive discussion of Bergson's view of temporal experience.

[29] See Dainton (2010/2001: 309-12) for an outline of an alternative suggestion regarding the basic structure of space-time, which has been gaining traction of late, on which the (spatio-temporal) continuum is infinitely divisible into *extended* parts (or 'gunk') rather than dimensionless points.

obvious differences in content (spatial vs. musical) or modality (visual vs. auditory), we might notice (phenomenologically) that there is a kind of 'directionality' to temporal experience (e.g., listening to a melody) which is irreducible to the smooth continuity which is also found in spatial perception. The suggestion here is that the idea of 'dynamic passage' or 'flow' in change experience captures not only (i) smooth continuity, but also a non-inferentially experienced feature of (ii) continuous transition or progression (see further details in chapter 3, section 1).

Even if we wish to put aside the thought about gapless continuity missing in the mathematical-physical continuum, the B-theory does not make room (at least on any straightforward understanding of the space-time continuum) for the feature of 'transition' or 'progression' being an aspect of time's reality. Insofar as a B-theorist is concerned, the Non-Veridicalist path is open.

## **IV** Prosser: Endurance and Dynamism

In the context of the first book length study of the experience of time on the B-theory, *Experiencing Time* (2016), Prosser develops a detailed account of the experience of dynamic passage from a B-theoretic perspective (aspects of which were presented earlier in Prosser 2012). Prosser's preferred way to categorize his view is as a version of 'moderate Veridicalism,' according to which "there is something about experience, veridical though it is, that results in our being disposed to find the A-theory plausible" (2018: 343). I shall consider the account as a variety of Non-Veridicalism, insofar as it affirms (P1:) the existence of flow or dynamic passage as a feature of non-inferential experience (part of a second-order phenomenology, as we shall see below), and attempts to offer a B-theoretic explanation of this experiential feature (thus arguing against P2). Prosser's account, I will claim, successfully addresses the concern about

(i) systematic coherence (which come up in relation to Le Poidevin's and Paul's views, as we've seen above), but does not achieve (iii) explanatory adequacy.

The worry about systematic coherence, as I've shown with regards to Le Poidevin's and Paul's views, has to do with a tension between an understanding of perceptual experience as reliable and a pervasive perceptual illusion of dynamic passage. Prosser frames an understanding of the phenomenon of flow sensitive to this concern. He does not aim to provide an explanation of the way we perceptually experience time as flowing or passing. In fact, according to Prosser, it is *impossible* to enjoy such an experience. In the second chapter of *Experiencing Time*, Prosser argues in great detail for the thesis that enjoying a veridical experience which has the representational content that time has any A-theoretic characteristics, including that time flows or dynamically passes, is impossible. This is developed through two arguments: the 'detector' argument and the 'multi-detector' argument, with the latter developing explicitly the aforementioned thesis: we cannot have veridical experiences of time as possessing A-properties. Roughly, the argument is that we must be differentially sensitive to - i.e., we must be able to detect - X in order for us to have a veridical experience of X. But there is no way for us, Prosser argues, to be differentially sensitive to the dynamic passage (and any other A-property) on any plausible view of the relationship between experience and the physical world (2016: Ch 2).

Prosser's provocative detector arguments are only the beginning of the story in *Experiencing Time*. The task Prosser undertakes in the rest of the book is to explain features of our experience that appear to be at odds with the B-theory. The aspect of this project relevant to our present discussion concerns the way we experience change, in contrast with the description emerging from the B-theory: "According to the B-theory, change is 'at-at' change – the world is in one state at one time, and in a different state at another time. But, it is suggested, when we experience change, such as motion, it seems to have a lively, dynamic quality that would be missing from the 'static block' world of the B-theorist" (2016: 160). One might wonder how this fits with the argument about the impossibility of experiencing change as dynamic (or

time as having any A-theoretic features). What the explanation essentially does is to appeal to a 'second-order' phenomenology in perceptual experience which then disposes us to believe that change is dynamic, or that time passes. "[I]t is impossible, according to Prosser, "to have a genuine, veridical experience of time passing," but "[t]here are elements of the phenomenology that motivate A-theorists and that must be explained away by B-theorists" (2016: 165).

Before developing the specific details of the proposal, Prosser presents two constraints pertaining to the general form of the view. The first is that what we should plausibly look for in this case is an account of the representational content of perceptual experience. We should have a description of *what* (i.e., of the representational content) we experience and of *why* it is that experiences have that content (2016: 162-5). The second consideration, which Prosser argues for in considerable length, involves the idea that dynamic passage represents a necessary falsehood.[30]

Prosser then gets to the interesting part of the account: the what (i.e., the content) and why. He proposes a hypothesis regarding what it is we're experiencing when we seem to perceive dynamic passage, and why we represent it that way. The essence of the account is that we represent objects as *enduring* (the what), and we do so because it is *economical* for our perceptual system (the why).

Let us examine the first element – the relevant content. The content is that we represent objects as enduring "through change" (2016: 172) rather than perduring, or consisting of temporal stages. According to the endurance theory of the persistence of objects, objects persist by being wholly present in more than one time, while on the perdurance view objects persist by having different temporal parts at different times, without any part being fully present in more than one time (Lewis 1986: 202).

Representing change, for example in the 'apparent motion' cases, involves representing a single object existing fully at each moment, an object which undergoes the change, rather than change being fully

[30] I leave out detailed discussion of this part of Prosser's argument in the present context.

cashed out in terms of successive temporal phases. Seeing the second hand of a clock moving, for example, involves representing it as wholly existing at each successive moment. It is important to note that Prosser's claim is not about the correct metaphysical account of persistence, but rather about the phenomenology involved in the experience of change. And in this case it is a second-order phenomenology, which comprises the representation of a necessary falsehood. There is an essential contradiction to an experience of change: representing the object as enduring involves representing the object both as *F* and as *not-F* (e.g., being red and then green, i.e. not-red). We thus have a view which is sensitive to the systematic coherence concern: the experience of dynamic passage is a second-order aspect of perceptual experience, a (necessarily false) *way* in which our experience represents (the verdically-experienced temporal parts of) objects.[31]

As to why we represent that content: we do so because it is more economical for our perceptual system. A number of suggestions concerning our tendency to experience objects as enduring build into the proposal, including the idea that we have 'object files' which hold together information about different phases of objects' existence, indexing that information to a single mental representation (2016: 180-1; see also Scholl 2007). We ultimately have these representations, Prosser argues, due to practical necessity. Our perceptual system is *'lazy'*: "it is more economical to represent a simple enduring entity through the deployment of an object file rather than a perduring entity that consists in the unity of a series of parts" (2016: 183).

We then have a systematic account in place, which appears at least somewhat intuitively plausible, in the sense that many instances of experiencing dynamic passage or flow do seem to involve the representation of a single enduring entity existing 'through' the change.

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[31] Prosser here draws upon David Velleman's ideas (2006) concerning the origin of the illusion of time's passage in the thought of ourselves as enduring, while extending this insight to the perception of objects generally. Prosser's suggestion also has commonalities with the Kantian insight that representations of change, 'alterations' in Kant's terminology, are conditioned by a representation of a thing maintaining its identity as permanent 'through' the change (2016: 172; see Kant 1929/1781–7: 216–17/ A187–A188/B231).

Prosser's detailed and sophisticated discussion appears to address the concern regarding systematic coherence. The experience of flow or dynamic passage is a second-order phenomenology, resulting from the representation of objects as enduring. We do not veridically perceive dynamic passage, but rather experience it (non-inferentially) as an upshot of our practically-oriented psychological constitution.[32]

We should ask, however, whether the core of the view – in particular, the proposal with regards to the represented content – holds up to critical scrutiny. Let us look at cases involving the perception of objects. The representation of objects as enduring rather than perduring is what is meant to supply us with the experience of flow or dynamic passage – objects are represented as wholly existing at each moment, according to Prosser, 'through' their distinct phases. Prosser uses the 'apparent motion' cases to (crudely, he admits) illustrate the way the proposal regarding content maps onto the experience of dynamism: "At some point a threshold is reached at which one's perception switches and one seems to perceive a single moving object" (2016: 183). The suggestion is that there is a shift in the phenomenology, and we represent an enduring object undergoing the motion or change. The question, however, is whether endurance is necessary and/or sufficient for producing the phenomenology of dynamic passage.

It seems that there is nothing in the *notion* of endurance, as defined above (the notion Prosser employs in his account), which should amount to the way endurance is *experienced* in this case. That is to say, there is nothing in the representation of endurance as involving an object existing in each moment of its existence that should imply either the smooth continuity, or the 'progressive' continuity which is involved in perceptually experiencing a moving or changing object. This is perhaps obscured by Prosser's repeated use of the word 'through,' which suggests that endurance is intimately related to a kind of flow or dynamism. But the 'through' is an insight, arguably, from the dynamic phenomenology, independent of the idea of endurance. An object understood as enduring could just as well be taken to exist *at* or *in* each

[32] What I called the (ii) pervasive illusion concern does not seem to arise with regards to Prosser's view. There is no aspect of the account which seems to rely on positing something flow-like or dynamically passing in our brains or perceptual system.

phase of its existence. The representation of endurance does not seem to be sufficient for the experience of dynamic passage.

Prosser briefly mentions an objection according to which we perceive dynamic change in instances where we do not in fact perceive objects, when "one hears the notes change while listening to music," for example (2016: 179). Prosser's response, while registering a degree of caution, is that musical sounds might be represented as properties of musical instruments, or that sounds themselves might be represented as objects which endure. "Either way," Prosser emphasizes, "there is no clear reason to think that there can be represented change without something represented as having a constant identity through the change" (2016: 180). This answer does not seem satisfying. When listening to a melody, for example, we do not seem to perceive a representation of an enduring instrument, or indeed any object whatsoever. We arguably perceive the succession of notes, harmonies, features of the arrangement, and through these features a progression, a dynamic and gapless articulation of the piece or work itself. This kind of example brings out the crucial lacuna in Prosser's account of the represented content in instances of dynamic passage or flow. As noted, this lacuna is also present in Prosser's preferred case of the perceptual experience of changing and moving (enduring) objects. The representation of endurance does not seem to be a necessary *or* sufficient feature of experiences of dynamic passage or flow.

The considerations regarding the representations of enduring objects being 'economical' do not seem to straightforwardly work in Prosser's favour, as noted by Skow (2018: 312-3). It is questionable whether representing endurance has computational advantage, since it involves, just like perdurance, information concerning the temporal parts of objects (namely, information about relevant objects lacking temporal parts). Skow's objection might not be successful. Even if economy favours endurance, however, the account has failed to explain the flowing, dynamic aspect of temporal experience.

## Conclusion

Existing B-theoretic accounts of dynamic passage or flow are, then, caught 'between a rock and a hard place'. I've looked at Non-Veridicalist proposals from Le Poidevin, Paul, and Prosser, which affirm a pervasive dynamism in temporal experience, a feature which does not conform to the type of change on offer by the B-theory. These accounts, however, arguably fail to flesh out a coherent (Le Poidevin, Paul) and/or explanatorily adequate (Le Poidevin, Paul, Prosser) view of the experience of flow or dynamic passage. I've also considered Deng and Hoerl's Veridicalism. Drawing upon phenomenological considerations (as well as a suggestion concerning the structure of space-time), I've argued that the Veridicalist proposal is not convincing.

The Non-Veridicalist accounts I've considered can be understood as *reductive* views of flow or dynamic passage, insofar as they reduce this experiential feature to responses on the part of our perceptual system to a B-theoretic, flow-less, reality. Veridicalist accounts can be understood as *eliminative* views, insofar as they claim that there is no such feature as flow or dynamic passage, over-and-above temporal properties which are fully compatible with the B-theory: succession, intervals, and simultaneity. Though the possibility of a cogent Non-Veridicalist account of flow or dynamic passage has not been ruled out by my argument in this chapter, the considerations I've put forth seem to leave the dynamic theory of time with an advantage. P2 of the 'argument from experience' has not been dislodged. In the present research, however, I will not advance an argument concerning the metaphysics of time. What I shall pursue, while discussing Bergson's work in the third chapter, is a proposal on which temporal flow or passage is primitive in the sense of being an irreducible property of temporal experience.[33]

[33] One might want to claim that a Non-Verdicalist can in fact acknowledge that the feature of flow or dynamic passage is an irreducible property of temporal experience, an acknowledgment which need not be understood as being in tension with the suggestion that manifest flow is explained by (i.e., is the causal upshot of) responses on the part of our perceptual system to flow-less aspects of reality. As I've argued in this chapter, however, existing Non-Veridicalist views (Le Poidevin 2007, Paul 2010, Prosser 2016) do no provide us with good reasons to think that such a feature should arise at all.

# 2

## The Puzzle of Experiential Process

*Perceptual experiences are not generally thought to possess the same structure as their contents. The experience of a blue lagoon, for example, is not itself blue, an experience of the roar of thunder from a great distance is not itself quiet, and an experience of the moon in the crescent phase is not itself crescent-shaped. But the case of our experience of time might be unique. It seems plausible to think that our perceptual experiences of successive notes in a musical phrase, for example, are themselves successive. Our perceptual experience of temporal properties, more generally, might be thought to have temporal structure.*

### Abstract

The Process View of temporal experience takes up the appealing idea that our temporal experience itself unfolds or progresses through time. This chapter explores this proposal in detail, while developing a critical perspective on recent varieties of the Processual account. In the first part of the chapter, I will provide relevant context, examining a theoretical common ground between the Process View and its main alternative – the Retentional View. In the second section, I survey motivations for the Process View, homing in on what I will call the 'Experiential Process Thesis'. This thesis, I will suggest, provides the most powerful motivation for the position. In sections three and four, I consider contemporary versions of the Processual model (Dainton 2006/2000, 2003, 2008a, 2014, 2016, 2017a, 2017b; Phillips 2010, 2013, 2014a,

2014b; Hoerl 2013, 2017). While in numerous respects innovative and illuminating, I will argue that these accounts do not seem to allow fully bringing out that which is at stake in the 'Experiential Process Thesis'. The core of my argument will involve fleshing out what the 'Experiential Process Thesis' implies – developing the idea of experience in instances of motion and change 'covering an interval,' or 'unfolding throughout an interval'.

## **I** Introduction: From Glow-Worms to Saddle-Backs

Consider watching a shooting star blazing a path through the night sky. Or consider common, everyday instances of awareness of change and motion: hearing the leaves rustle in the wind, listening to a phrase of a melody, watching the rain fall, feeling the flow of water against your skin. There is a difference, it seems, between such cases, and cases in which we merely notice that a change has occurred. Compare watching a shooting star with noticing that the moon is in a different location in the night sky. Or, to take an example from Broad (1923: 351) briefly mentioned in the previous chapter, compare watching the second hand of a clock move with noticing that the hour hand has moved. It seems correct to say that these cases are individuated by different forms of awareness: in one case we are non-inferentially aware of the change (e.g., when watching a shooting star), while in the other we notice that a change happened by recalling the previous state or location (e.g., in the case of noticing that the moon is in a different location).[1]

As appealing and straightforward as this insight may seem, the individuation of these distinct forms of awareness is absent from a view which held sway in philosophical circles until the late 19th century. A

[1] See chapter 3, section 1 (*'Durée as the 'Immediate Datum' of Experience'* sub-section) for further discussion of the limitation to non-inferential experience in relation to Bergson's view.

notable champion of the view is Thomas Reid, who writes *Essays on the Intellectual Powers of Man*: "The senses give us information of things only as they exist in the present moment ; and this information, if it were not preserved by memory, would vanish instantly, and leave us as ignorant as if it had never been" (1785: 303). On this view, our perceptual experience is limited to the strictly instantaneous, 'snapshots' of which are then compared and connected by memory. The theory has the consequence that the cases of (i) watching a shooting star and (ii) noticing that the moon's location has changed are *not* individuated as different forms of awareness, thus belying the phenomenological insight we just noted. Both cases involve succession, and "no kind of succession," Reid writes, "can be an object either of the senses or of consciousness" (1785: 325-6). Motions and changes "could not be observed by the senses alone without the aid of memory" (1785: 326).

The view coming up in Reid's work, which is widely rejected today,[2] has been termed the 'Cinematic Model' of temporal awareness. In Dainton's influential mapping of the temporal consciousness debate, the view is defined as follows:

> **The Cinematic Model**: our immediate awareness lacks any (or any significant) temporal extension, and the same applies to the contents of which we are directly aware – they are akin to static, motion-free 'snapshots' or 'stills'. Our streams of consciousness are composed of continuous successions of these momentary states of consciousness. In this respect they are analogous to movies, which (as displayed) consist of rapid sequences of still images. (Dainton 2017a)

[2] Though Chuard (2011, 2017) argues for a relevantly similar view. Prosser (2016: Ch 5) proposes a model of temporal experience which he calls the 'Dynamic Snapshot Model', according to which we are made aware of movement and change in virtue of instantaneous states. These states, however, possess dynamic content, unlike the static 'snapshots' of the Cinematic View.

This model has been also recently referred to as the 'zoetrope conception' in Phillips (2011), following remarks by James (1890a: 200) on the apparatus as providing an appropriate illustration of the view. While a number of important contributions in the late 19th century made room for the appealing idea of an immediate awareness of change differing from a comparison in virtue of (recollective) memory,[3] the most influential thinker in dislodging the Cinematic View of temporal consciousness from its prominence in the Anglophone world was undoubtedly William James.[4]

In the chapter on 'The Perception of Time' from his *Principles of Psychology* (1890a, 1890b), a reprint of a journal article from 1886, James begins by considering the implausibility of the view emerging from Reid's work. According to the view, James notes, "[o]ur consciousness would be like a glow-worm spark, illuminating the point it immediately covered, but leaving all behind in total darkness" (1890a: 606). While abstract reflection on the idea of the present as strictly instantaneous[5] might lead us to the conclusion that it "must exist" (1890a: 608-9), according to James, this altogether "fanciful hypothesis" (1890a: 606) can be swiftly rejected when we consider our immediate experience. Rather than apprehending instantaneous (or quasi-instantaneous) content connected by memory to form a "string of bead-like sensations and images, all separate" (1890a: 605), we find that we can *directly* perceive change and movement, and that the scope of our perceptual mode of awareness covers an *interval.* James adopts the term 'the specious present' from E. R. Clay's[6] *The Alternative* (1882: 167), presenting the idea in the following form:

[3] See Andersen and Grush (2009) for an illuminating discussion of relevant work in the Anglophone context.

[4] Bergson and his precursors in France were also highly instrumental in dislodging the view in the continental context at the time (see chapter 3, fn. 10, 44 for further discussion). There was, in addition, a significant influence of German scholars, some of which are discussed by James (1890a: Ch 15).

[5] See Andersen and Grush (2009: 281-5) for the significance of the distinction between 'strict' and 'vulgar' notions of the present in Reid's work.

[6] The pseudonym of E. Robert Kelly.

> [T]he practically cognized present is no knife-edge, but a saddle-back, with a certain breadth of its own on which we sit perched, and from which we look in two directions in time. The unit of composition of our perception of time is a *duration*, with a bow and a stern, as it were – a rearward and forward-looking end. It is only as parts of this *duration-block* that the relation of succession of one end to the other is perceived. We do not first feel one end and then feel the other after it, and from the perception of the succession infer an interval of time between, but we seem to feel the interval of time as a whole, with its two ends embedded in it. (1890a: 609-10)

James' influential characterization of the insights divulged by tuning into immediate experience, in contrast with the puzzling results of abstract speculation, perhaps raises questions more than it gives answers. This initial characterization, nonetheless, captures two ideas which play a key role in the views discussed below. I shall call the first the 'Perception of Change' thesis:

> **Perception of Change Thesis**: we perceive change and motion immediately, or non-inferentially.

And the second the 'Unity of the Interval' thesis:

> **Unity of the Interval Thesis**: we perceive succession as adding up to whole intervals, or 'duration-blocks'.[7]

While closely related, and discussed in unison in James' chapter, we shall see that these ideas can be considered separately in significant respects.[8] The first thing to note is that these theses accommodate the

[7] There have been various views regarding the metrical correlate of the 'specious present' interval, ranging from 200ms (Grush 2016), 500ms (Prosser 2016, Dainton 2006/2000), one second (Hoerl 2013), up to a few seconds or more (Pöppel 2004, Lockwood 2005, James 1890a). For present purposes, I shall assume that the interval designated by the term is around a second long. For recent discussion of the extent of the specious present, see Arstilla and Lloyd (2014: 212-3) and Dainton (2017a: 'The Specious Present: Further Issues' supplementary document).

[8] Both of these ideas figure in what Dainton terms 'Phenomeno-Temporal Realism': "changes, succession, and persistence can be directly perceived or apprehended' (2017a). The Perception of Change thesis is close to Dainton's 'phenomenological constraint': "our experience of change is just as immediate as our experience of shape or colour" (2006/2000: 115). But it need not involve the comparison to shape and colour. Dainton's more recent formulation of this idea, as the 'immediacy thesis,' equates the perception of change with the perception of succession and persistence. According to the immediacy thesis "change,

striking difference we opened with: we can non-inferentially *perceive* changes taking up intervals of time, which is a rather different thing than noticing that changes took place. More importantly, however, taking up these two related insights leads us towards a question which forms the core of a present debate on temporal consciousness. The question is: *how* are we aware of change and motion? More specifically, we are investigating the relation between the *contents* of which we are aware in non-inferential temporal experience and the *contours of temporal experience itself*: does experience itself unfold in time, or does it merely involve the presentation, or representation, of temporal properties?

James touches upon this issue in a section of 'The Perception of Time' entitled 'The Feeling of Past Time is a Present Feeling'. A first perspective on the issue is discussed in relation to a suggestion from Helmholtz: "[s]imultaneity, succession, and the regular return of simultaneity or succession, can obtain as well in sensation as in outer events. Events, like our perception of them, take place in time" (1925: 445; cited in James 1890a: 628). The idea outlined here is that experience itself unfolds through time. Instances of perceptually experiencing one thing succeeding another, for example, are understood as *themselves successive*, covering durations just like the apprehended contents. This idea is at the heart of the view termed by Dainton the 'Extensional' account of temporal experience (or 'Overlap' model in earlier - e.g., 2006/2000, 2008a - formulations), recently presented and defended by Phillips (2010, 2013, 2014a, 2014b) and Hoerl (2013, 2017), in addition to the pathbreaking work of Dainton himself (2006/2000, 2003, 2008a, 2014, 2016, 2017a, 2017b).[9] I shall term the view, following Lee (2014), the 'Process View' due to considerations I highlight in the subsequent discussion (in this chapter and the next), involving the significance of processuality within an account of the way we perceive temporal properties.

succession, and persistence can feature in our experience with the same vivid immediacy as colour or sound, or any other phenomenal feature" (2017a).

[9] Earlier articulations of the position can be found, as discussed by Dainton (2017a, 2017c), in Stern (1897) and Foster (1979, 1982, 1991). Bergson's relation to the view will be explored in the next chapter.

**The Process View**: temporal experiences are themselves spread out (or extended) over time.[10]

One can read at least parts of the aforementioned quote from James regarding the 'specious present' in light of the Process View. The idea of a 'saddle-back' on which we 'sit perched,' from which we look in both directions, could support a reading according to which temporal experience itself has (significant) temporal structure. The Process View also fits comfortably with James mentioning a "living and moving organization" of a tract of time in experience (1890a: 608).[11] James, however, opts for a different model of temporal experience, labeling the Process View "too crude" (1890a: 628).

According to the view defended by James in the 'The Perception of Time,' we experience temporal features as "a sort of perspectival projection" within present consciousness, "similar to that of wide landscapes upon a camera-screen" (1890a: 930). He endorses an idea from Ward (1886): "past, present, and future are differences in time, but in presentation all that corresponds to these differences is in consciousness simultaneously" (Ward 1886, cited in James 1890a: 630). This view provides a radically different answer to the question posed above, concerning the features of temporal experience and their relation to the contents of experience. Experience itself does not unfold over time, but rather has contents which come apart from its temporal articulation, and open a 'window' into temporality in perception. This position has become known as the 'Retentional View', and can be characterized as follows:

[10] Due to considerations concerning the processuality of perceptual experience, which shall become clear in the course of the subsequent discussion, I privilege this formulation over the full definition provided in Dainton's entry on 'Temporal Consciousness' in the *Stanford Encyclopedia of Philosophy*: "our episodes of experiencing are themselves temporally extended and are thus able to incorporate change and persistence in a quite straightforward way. Our streams of consciousness are composed of successions of these extended 'chunks' of experience" (2017a). The same goes for Lee's and Hoerl's definitions. According to Lee, the Process View is the positions according to which "experiences of temporally extended phenomena are always built up of shorter experiences as temporal parts" (2014: 4). According to Hoerl, "for the extensionalist … the explanation of why we have, say, experiences of succession, is to be sought in the fact that episodes of perceptual experience themselves unfold over a period of clock time" (2013: 375). I take it that all the aforementioned theorists would take up the minimal characterization I offer in the definition.

[11] See Kelly (2005: 210) for a Process View (or Extensionalist) reading of James' ideas in the 'The Perception of Time'.

> **The Retentional View**: experience of temporal duration or temporal structure does not itself have (significant) temporal structure. Despite this fact, each experiential atom may provide an extended window onto a temporally structured state of affairs. (Dainton 2017a, Lee 2014)[12]

The model was influential throughout much of the 20th century, largely following Husserl's (1991 [1893-1917]) and Broad's (1938) lead, and can be found earlier in Brentano's 1873 lectures (as described by Husserl in Husserl 1991 [1893-1917]) and Meinong's (1899) work. More recently, the Retentional account has been defended by Grush (2005, 2007, 2016), Tye (2003), and Lee (2014).

James' own sympathies in the *Principles of Psychology* clearly lie with the Retentional conception of temporal experience. Insofar as some of the discussion in the chapter welcomes a reading bringing him closer to the Process View, however, this oscillation indicates the shape of the contemporary debate regarding the structure of temporal experience.[13]

[12] According to many Retentional theorists, notably Husserl (1991 [1893-1017]), the contents of temporal experience involve 'retentions,' a unique form of very recent memory traces which combine with present sensations in providing us with perceptual experiences of movement and change. Lee (2014) outlines a position which shares the central assumption I outline in this definition of the Retentional View, but argues that an account of temporal experience need not involve an appeal to memory in any form, including 'retentions'. The way I define the position here is meant to accommodate a position such as Lee's. Phillips (2018) recently argued against Lee's attempt to purge the view of a relation to a unique form of memory. See the fourth chapter of the present research for a discussion of the role of memory in the immediate perception of temporal properties.

[13] As Dainton emphasizes, the debate between the views has far-reaching consequences for our general understanding of conscious experience: "[a]scertaining where the truth lies among the differing accounts of the temporal contents of our immediate experience is interesting and intriguing in itself … [but] [t]he interest and importance of the debate does not end here, for each of the accounts of temporal awareness on offer has significant, and very different, implications for our understanding of the general structure of consciousness" (2017a).

## **II** Motivating the Process View

Both the Process and Retentional views, two sides of the contemporary debate on the nature of temporal experience, accept the two theses I presented above: the 'Perception of Change' thesis and the 'Unity of the Interval' thesis. We perceive the features of succession, simultaneity, and intervals immediately, or non-inferentially, in the context of the temporal 'window' (itself either temporally extended or instantaneous/insignificantly extended) typically termed the 'specious present'. What might incline one towards the Process View? Why should we take there to be an intimate connection between temporal experience and its content? In the present section I survey motivations for the Processual account from the recent literature. My discussion will lead towards pinpointing a particularly powerful reason for adopting the view, an idea captured in what I will call the 'Experiential Process Thesis'. I will suggest that this thesis provides the Process View with at least some dialectical advantage over the Retentional alternative.[14]

[14] Detailed discussion of motivations for the Retentional View, as well as an argument against the view, lies beyond the scope of this chapter. A few of the reasons which have drawn philosophers to the Retentional model, however, can be noted.

One historically influential motivation for the position emerges from a particular understanding of a widely-discussed 'slogan' in the philosophy of temporal experience. An influential formulation of this slogan can be found in James' 'The Perception of Time' chapter: "a succession of feelings, in and of itself, is not a feeling of succession" (1890a: 628). On some level, this seems to be obvious: experiences of different subjects, for example, can be successive without involving an experience of succession; successive experiences that I enjoy over the course of several days, e.g. listening to a song one day and another the next, need not amount to an experience of their succession. What are the conditions in which a succession of experiences amounts to an experience of succession? A thought that was appealing for many post-Kantian thinkers, James of the *Principles* included, is that in order for us to have an experience of succession the successive events must be presented simultaneously. This idea, to which many Retentional theorists subscribed, has been called the Principle of Simultaneous Awareness (PSA) by Miller (1984: 109): a simultaneous presence in momentary awareness is required for the unified apprehension of temporal properties. If we take up the Perception of Change thesis, the Unity of the Interval thesis, and the PSA, the Retentional view seems to be the only option – our temporal experience is 'packaged' in momentary, or quasi-momentary, acts of awareness.

The PSA, however, is not generally considered to be a central motivation for contemporary versions of the Retentional approach. Much of the discussion in recent scholarship considers the idea as a 'dogma' which isn't necessary for an account of the unity of temporal contents. One can acknowledge, for example, that a succession of experiences, "in and of itself," does not amount to an experience of succession, and offer an account of the experience of succession as afforded by the 'temporal window' of the 'specious present', regardless of the commitment to this 'window' being present simultaneously to consciousness. The specious present would then single out the precise kind of successive experiences which amount to an

Dainton has highlighted (following Foster) the 'problem of repeated contents' (2006/2000: 164, 241-2; 2014; 2016: 85ff.) as a motivation for the 'Extensional' or 'Overlap' view, a version of the Process account. In order to approach this issue, let's consider the experience of the notes G-D-B played on a piano in two specious presents, which divide on the D note. There is an evident feature of the way we experience this sequence which, according to Dainton, it is important not to overlook: when we hear the notes, we hear the D tone only *once.* We hear the sequence as the succession of G, then D, then B. The problem for the Retentionalist, Dainton argues, is that according to the view the D note would be *repeated*. On the Retentional model, our experience is separated into self-contained, or distinct, episodes, in this case first the episode, or experience *G-D*, followed by the experience *D-B*. On the model, "we can experience [G-D] and [D-B], but we cannot experience [G] being followed by D, and (the very same) D being followed by [B]" (2014: 89). The view seems to work against an evident feature of our experience of events. Insofar as the Process theorist can successfully accommodate this feature, the pressure against the Retentional position would at the same time push us towards the Process View.

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experience of succession. On this kind of understanding, James' slogan would be neutral between the Processual and Retentional accounts (Hoerl 2013: 385-7).

The Retentional View's appeal frequently turns on recognizing systematic constraints on the nature of perceptual experience. One such constraint is that generally, experiences with contents need not themselves have the properties they represent. My experience of the white coffee mug is not itself white, for example. In similar fashion, my perceptual experience of temporal properties need not be thought to be successive (Tye 2003). The distinction at play here is between (i) the vehicle of the experience, the mental representation or neural state, and (ii) the content of the experience.

An additional thought motivating a contemporary Retentional account, in the guise of Lee's 'Atomic View,' involves background assumptions shared by theorists who work out models of the way temporal properties are processed in the brain. Lee spells this out in detail in an argument he calls the 'trace integration argument': peripheral information which is contained in patterns of receptor stimulation is integrated, or 'packaged,' in the brain into simultaneous representations which are 'spatially' coded, in order for them to causally determine post-perceptual processes such as motor control and reasoning. On this account, the successive occurrence of A -> B, for example, is integrated into a representation which is itself 'atomic' rather than 'process-like' (Lee 2014: 13-16).

A further motivation for the Retentional view emerges in relation to explanations of temporal illusions, e.g. the 'flash-lag' illusion (Grush 2007, 2009, 2016). See Dainton (2008a) and Phillips (2014a, 2014b) for Processual interpretations of temporal illusions.

It seems, however, that a Retentional theorist can resist this move by claiming that the objection does not fully appreciate the vehicle-content distinction implied by the view. On the level of *content*, the Retentional theorist can insist, both instances of D are represented as occurring at the very same time, after the G and prior to B. The Retentional notion of the content of the experience in this case does not include D as occurring *in more than one time,* which would raise the 'repeated contents' worry (Tye 2003: 93-4). It seems that, at least in principle, the objection is not lethal for the Retentionalist.[15]

Another path for motivating the Process View involves highlighting the close bond between the account and the relational view of perceptual experience. The Process, or Extensional theorist, Hoerl notes, "is probably best seen as motivated by a relational view of experience" (2013: 381). According to the relational view, "the most basic characterization of perceptual experience is to be given by citing and/or describing certain *direct objects* with which the subject is *acquainted* in such experience" (Brewer 2011: 16). On the version of the view presented by Hoerl, "all there is to experience … are the actual items perceived and an entirely generic relation in which the subject stands to them" (2013: 379). This contrasts with the representationalist view of perception, on which perceptual experiences are understood fundamentally as involving intentional content with veridicality or accuracy conditions. Equipped with the relational idea, according to Hoerl, we can approach cases of succession, in which we are dealing with "successive objects of awareness", and note that the 'generic' relation can be seen as "something in which we stand to each of those objects in turn, as they succeed one another" (2013: 380).

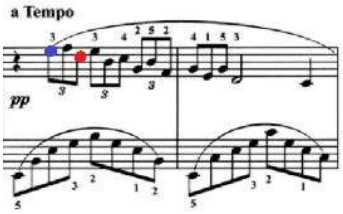
The question here is whether it is the relational account *as such* that is doing the work in motivating the Process View. As Hoerl notes in a 2017 paper, the Cinematic Model of temporal experience (in its

[15] See further discussion of the general issue involved in Dainton's 'repeated contents' argument in section 3 of the present chapter.

'memory theory' guise)[16] can *also* be seen as motivated by the relational view. In this case, the items of which we are directly aware are confined to the present moment in the 'strict' sense: perception is constituted by a relation to present 'time-slices' or 'snapshots' which lack intrinsic temporal properties. So when we uphold the relational view, we are faced with (at least) two rather than one theoretical option for an account of temporal experience. Nonetheless, Hoerl argues that "the memory theory flies in the face of phenomenology" (2017: 180). It seems that there is here a *phenomenological* insight putting pressure on the Cinematic View, *independently* of the bond with the relational view. What is the relevant phenomenology of change perception, and how does it dialectically position the Process View with regards to the Retentional proposal?[17]

As the discussion thus far shows, neither the 'repeated contents' objection, nor the relational view in itself serve to distinctly motivate the Process View. The most powerful consideration in favour of the account, I would like to suggest, involves an appeal to the way experience seems to us. When we hear the wind rustle through the leaves, when we see a shooting star, we notice that our experience itself unfolds in time.

Consider listening to the following musical phrase from Debussy's Arabesque no.1:




[16] According to which temporal awareness is explained by connections in memory. This is contrasted with the Cinematic View in its 'resemblance theory' guise, on which what explains our temporal awareness are limits in our introspective capacities, with the result that experience of succession would resemble a smooth transitions (Hoerl 2017: 176).

[17] Some of Hoerl's discussion suggests that what is at work here is what I called the 'Perception of Change' thesis. As I show in what follows, however, change is also robustly manifest (phenomenologically) in an additional way.

When we listen to the phrase, I would like to suggest, we (pre-reflectively) notice that we experience the E (in blue) *before* we experience the C (in red). We not only perceive the notes succeeding one another, we are (pre-reflectively) aware of experience progressing in time. We notice that our experience itself unfolds with the melody. The typical understanding of the specious present outlines an interval of around a second in length.[18] When performed according to the score, both notes are played typically in the interval designated by the 'specious present' – they occur less than half a second apart. And it is evident from listening to the phrase – or so I take it - that our experience of the notes is *itself* successive. Experience 'manifestly' has temporal structure (Phillips 2010: 183; 2014a: 142, 143). This idea is expressed in the following insight:

**The Experiential Process Thesis**: our experience appears to us as itself unfolding in time.

It has been widely recognized that (what I am calling) the Experiential Process Thesis involves a robust phenomenology (Lee 2014: 7; Rashbrook 2013: 606; Phillips 2010: 183; 2014a: 142, 143).[19] How does this thesis dialectically position the Process theorist in relation to the Retentionalist? How might the Retentional theorist respond?

A key strategy has been to claim that the Experiential Process Thesis involves a vehicle-content confusion. Just as the experience of hearing a firecracker is not itself loud, our experience of succession need not itself be successive (Tye 2003: 90, 101; see also Grush 2006). It is open to the Process theorist, however, to

[18] See fn. 7.

[19] I leave aside, in present context, discussion of an additional, related thesis: 'The Inheritance Thesis'. According to this thesis, for any temporal property apparently presented in perceptual experience, our experience itself possesses that temporal property. This idea has occasioned substantial discussion in the literature. There are different views on precisely *which* properties are inherited by experience. According to Hoerl, experience unfolds in clock-time (2013: 375; 2017: 172). Phillips takes it that experience need not have metrical properties, focusing on the "uncontroversial" properties of succession, intervals/durations, simultaneity (2014: 143).

respond that time is manifestly *special* in this respect. When we look at a red dress it does not seem to us that our experience is itself red, but when we experience temporal properties it *does manifestly seem* that our experience unfolds in time (see Rashbrook 2013: 588; Phillips 2014a: 142).

An alternative strategy, from Prosser's (2016)[20] recent work, attempts to challenge the robustness of the phenomenology.[21] While acknowledging that a structural matching between temporal experience and its contents has some *prima facie* plausibility, Prosser contends that this this plausibility derives from being correct on timescales which are longer than the specious present. At the scale of the specious present, according to Prosser, the insight does not clearly hold:

> The big question is whether it is legitimate to assume that the same structural matching holds true at shorter timescales. Here, I do not think introspection can be assumed to be reliable. I find I have no clear feeling about the timing of the experiences in cases in which I am aware of the second event before I have had time to react to the first event. (2016: 146)

Prosser's claim is that we cannot ascertain the temporal structure of experience at the relevant scale of the specious present – 500ms on his view. "For all introspection can tell us," he suggests, "it could be that the temporal structure of experience is analogous to the behaviour of matter in quantum physics; the largely correct intuitions that one has about the behavior of matter at macroscopic scales turn out to be importantly mistaken at very small scales" (2016: 146).

[20] Prosser does not argue for the Retentional View. But this particular aspect of his argument, if successful, could lend support to the Retentional theorist.

[21] This suggestion forms part of Prosser's critical discussion of the idea of the 'specious present' in the fifth chapter of *Experiencing Time* (2016). A key ingredient of Prosser's argument in the chapter concerns the inability to distinguish, either phenomenologically or empirically, between the Retentional model and the Process View (2016: 155). If the Experiential Process Thesis possesses a high degree of phenomenological plausibility, as I try to claim here, Prosser's claim is incorrect: we can phenomenologically privilege the Process View.

Prosser's claim is highly implausible. The 'quantum physics' model of experience in shorter scales seems to be radically at odds with our experience. Let's return to the example of the musical phrase from Debussy's Arabesque no.1. Even on a 500ms understanding of the specious present, we can notice that we enjoy an experience of the E (in blue) preceding an experience of the note C (in red) in the phrase. It is an *unmistakable* insight, I take it, that our experience, on any scale attributed to the specious present (see p. 49 fn. 7), itself unfolds in time.

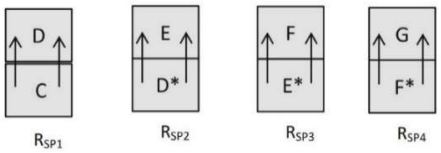
With the Experiential Process Thesis securely in place, the Process View would have the dialectical advantage of welcoming the three insights outlined thus far, three ideas conforming to common-sensical reflection on our experience: the (i) Perception of Change thesis, the (ii) Unity thesis, the (iii) Experiential Process thesis. But fleshing out straightforward insights is not always a straightforward affair. In the next two sections, I examine contemporary versions of the Process View (Dainton 2006/2000, 2003, 2008a, 2014, 2016, 2017a, 2017b; Phillips 2010, 2013, 2014a, 2014b; Hoerl 2013, 2017), arguing that they do not allow us to successfully bring out Experiential Process Thesis.

## **III** Dainton: Co-Consciousness and Intrinsic Dynamic Patterning

Dainton's 'Extensional' model, a prominent version of the Process View, has been developed throughout numerous publications (e.g., 2003, 2008a, 2014, 2016, 2017a, 2017b) following upon *Stream of Consciousness: Unity and Continuity in Conscious Experience* (2006/2000), a work which in many ways has sparked the contemporary renaissance in the philosophy of temporal experience, setting the stage for much of the subsequent discussion. In this section, I will first (i) examine central features of Dainton's view, and then (ii) discuss the way the Experiential Process Thesis relates to the position.

Dainton's theoretical proposal regarding temporal experience is originally presented, in the seventh chapter of *Stream of Consciousness*, as a response to the 'problem of repeated contents' which purportedly afflicts the Retentional View.[22] The problem, let us recall, can be illustrated with the following example: if we experience the notes G-D-B, separated by two specious presents on the D, according to the Retentional theorist we would have two self-contained specious presents *G-D* and *D-B*, and the succession would not be identity-preserving as it seems to us. The succession would not be that of *G* followed by *D*, then followed by *B*. The D would be described as experienced *twice over*, thus running against the phenomenology. Dainton sums up the problem in *Stream of Consciousness* while discussing Broad's (1938) view: "since successive acts apprehend numerically the same contents, the same contents will be experienced many times over" (2006/2000: 162).[23] The more general issue that comes up here is that the Retentionalist View does not accommodate an appealing *simplicity* and *continuity* in our experience.

This general issue is illustrated, in a more recent publication, with an additional example. When we listen to the notes C-D-E-F-G sounding in succession, for example, it seems plausible to say that the D note is heard as succeeding the C note, and coming before E. In that sense, things are different with the *C* and *G*. The C is experienced as *commencing* the succession, and the G as *ending* it. If we consider the succession of the five notes comprising specious presents which include two notes each, this (*commencing-ending)* insight seems to be unavailable within the Retentional View. Dainton presents a Retentional modeling of the situation:



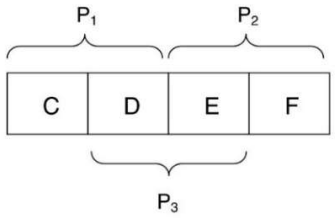

[22] Dainton develops Foster's (1979, 1982) discussion of the issue.

[23] For Dainton's recent engagement with this topic, see 2016: 85-9.

The figure presents the succession of specious presents $R_{SP1}$, $R_{SP2}$, etc. and the contents of each episode. The Retentional description, Dainton argues, involves the introduction of *discontinuities* into the experience in a way which runs afoul of the phenomenology. As Dainton describes it, "[t]he experiences corresponding to D, E, F and G are all experienced as being followed by nothing, whereas the experiences corresponding to C, D*, E* and F* are all experienced as being preceded by nothing" (2016: 90). What we actually experience, however, is a continuity which begins with C and ends with G. The Retentional account of this case, Dainton suggests, is radically at odds with the fact that we experience a simple continuity between the notes in which one note begins the phrase, and the other ends it.

As mentioned above, it seems open to the Retentional theorist to respond to the 'repeated contents' objection with the idea that the complexity and discontinuity described by Dainton are not part of the *content* of the experience. In hearing the phrase G-D-B between two specious presents, on the level of content there is no time *between* two instances of D. The two instances of D are not experienced as discontinuous. A similar rebuttal seems to be available with regards to the second idea just outlined. On the level of the content, the phrase is experienced as beginning with the C. Things would not be the same for the D, which is experienced between the notes C and E, in a way which distinguishes it from the C. The Retentional rebuttal can involve a description of the content of experience which acknowledges that the experience is as continuous and simple as it seems to us. Nonetheless, even if there is a way out phenomenologically for the Retentional theorist, the complex description seems to hold on the level of the representational vehicle. And we could perhaps be justified in preferring a simpler overall account of the experience if one is available, an account which need not necessitate the complex theoretical maneuvering of the Retentional View. This is what we find with the Extensional model.

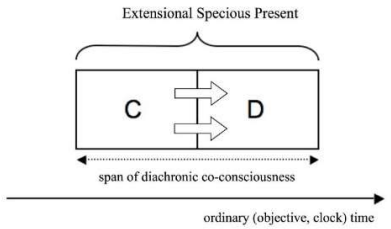
Dainton's Extensional model is the view according to which the perceptual experience of change and motion is not 'packaged' into momentary acts of consciousness, but rather extends a short distance through time, just as it seems to us (e.g., 2016: 84). The extended episode of specious present, on the view, has briefer experiences as parts (2016: 84). The account, then, takes up the (i) Perception of Change Thesis, the (ii) Unity of the Interval Thesis, and the (iii) Experiential Process Thesis. The solution offered within this view to the (two) aforementioned problems involves an appeal to the way specious presents are related to each other. Dainton's model develops the idea that specious presents overlap, as shown in the following (simplified) figure (2008a: 372):




In this diagram, $P_1$, $P_2$, and $P_3$ indicate different specious presents. What 'holds together' the different specious presents, on Dainton's view, is a primitive experiential relation: co-consciousness (e.g., 2006/2000:160 ; 2008a: 370). Co-consciousness allows for the continuity that the Retentional proposal does not attain. We need not commit to extra discontinuities, arising from the idea that each Retentional specious present is self-contained. Specious presents continue one another, in virtue of overlapping with each other. Crucially, in introducing the idea of co-consciousness, Dainton's suggestion does not involve a commitment to additional contents or experiences, over-and-above the specious presents themselves. Co-consciousness is a *relation* between experiences. The continuity and identity-preserving features are then secured in a simple manner.

Now, co-consciousness has an additional role in the account of the perceptual experience of temporal properties: it unifies together the phases, or parts, of the movement and change we immediately experience

*within* each specious present.[24] It provides the experiential 'glue,' so to speak, in the form of a primitive relation between the phases. This can be seen in the following figure of the succession of the notes C and D in a single specious present (2017a):




Notes C and D, in this example, are successive and yet held together in virtue of the co-consciousness relation. Recall that in Retentional models, succession is understood as content which is itself instantaneously, or quasi-instantaneously, experienced. This has the result that the temporal content comes apart from the structure of experience itself. Dainton's view does not have this result. On the model, there is no need to posit additional contents, or 'atomic' states, beyond a primitive experiential relation which obtains between the successive phases of changes and movements.

*

We've seen, thus far, that Dainton's Extensional model makes room for experiential continuity and simplicity, both between and within specious presents. As I've argued above, the most compelling reason in favour of adopting a Processual model of temporal experience is captured by the Experiential Process Thesis: our experience appears to us as itself unfolding in time. What I would like to suggest, at present, is that Dainton's Extensional view, as it stands, does not make room for the thesis. The problem arises, in

[24] The notion of co-consciousness also plays a key role in an account of experience beyond its temporal features. It connects together *simultaneous* experiences, as unified yet distinct (2006/2000: Ch 3, 4). See the end of the present section for an additional note concerning the way co-consciousness applies equally to temporally extended as well as simultaneous experiences.

particular, when we consider in detail what we mean by experience 'unfolding throughout an interval' or 'covering an interval'.

The issue can be underscored in relation to Dainton's discussion of the symmetrical nature of co-consciousness and of the 'flow' of experience. Co-consciousness, Dainton notes, is a non-transitive relation. If we consider the successive specious presents A, B, C as related co-consciously, for example, A and C are not co-conscious. The co-consciousness relation, however, is *symmetrical* (2006/2000: 173). In this example, specious present B is co-conscious with A, as A is co-conscious with B. Looking at a single specious present, in an example of experiencing a ball's movement from location l1 to l5 during times t1 to t5, the phase t2 is co-conscious with phase t3 in the same way as t3 is co-conscious with t2. And yet, we experience the phases as occurring in a definite temporal *order*. The transition between the phases "is directly experienced, and it is experienced as occurring in a particular direction" (2006/2000: 173). Temporal consciousness has what Dainton calls a "manifestly flowing character" (2006/2000: 173). How can this insight be accommodated within Dainton's view? Co-consciousness does not seem to fit the bill, in virtue of its symmetrical nature. The purported solution to this problem involves the phenomenal content or character of experience, its 'dynamic temporal patterning' (2006/2000: 177). The 'flow' of experience is part of the way the experience strikes us:

> 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 images of the ball at two different places. The content is *a ball moving*. Movement or animation is, as it were, built into the content from the start. It is similar for auditory experience. When I hear the note *Do*, the content of my immediate experience is *a note enduring*. (2006/2000: 176)

Flow is, then, an intrinsic quality of the experience, one which individual phases can possess in themselves. This idea need not be seen as being in tension with the symmetrical nature of the co-consciousness relation, according to Dainton. Experiences can be understood as symmetrically related, while taken to possess a flowing or progressive characteristic. But this might not be sufficient. The problem, I would like to suggest, is that the idea of progression or temporal direction might be essential for understanding that which is involved in the notion of experience 'covering an interval,' which brings out the Experiential Process Thesis. Let us closely consider this suggestion.

On the Process View (e.g, Dainton's Extensional View), experience itself unfolds over or through time, and the best reason to think that it does is that experience is manifest to us as unfolding over time (the Experiential Process Thesis). In order to bring out what is at stake here, let us consider the experience of a bird's flight from locations l1 to l5, between times t1 to t5, in the context of a specious present. Experience 'covering the interval', or 'unfolding throughout the interval' does not merely mean that the experience encompasses the succession of states t1-t5 in the interval. This is accommodated well by the Retentional View. On the Retentional account of the specious present, we can be understood as enjoying a perceptual experience with the (simultaneously-experienced) content of the succession t1-t5. Covering the interval, I would like to suggest, bringing out the Experiential Process Thesis, means that we experience the movement covering t1-t2, *then* we experience it as covering t1-t3, *then* t1-t4, and finally t1-t5. A unified movement is thus experienced as being articulated throughout or during the interval. We experience the whole movement as it is 'building up'. This idea is masked by the simplicity of the figures above, perhaps due to the fact that we regularly represent time horizontally. It can be more accurately represented in the following figure, in which time is represented vertically:

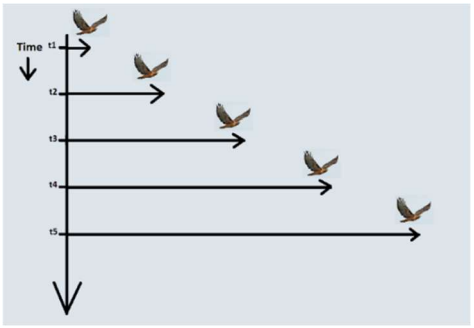



Figure I: A Bird's Flight

The unity of the experience of a bird's movement during an interval, this figure is meant to show, 'builds up' by gradually covering the interval t1-t5.[25] What might account for this, on Dainton's view? The co-consciousness relation, which holds together the distinct phases of the movement, is itself symmetrical with respect to time and thus cannot explain the way experience covers an interval. It is independent of the direction, or progression in the interval, which is on Dainton's view a qualitative aspect pertaining to phases in isolation. The 'dynamic temporal patterning,' as pertaining to discrete stages, similarly cannot do any work in explaining the way experience unfolds throughout an interval. The Extensional view, as it stands, does not seem to allow for the development of the Experiential Process Thesis.

Let us recall Dainton's insights concerning continuity and simplicity, which I presented above. What allowed us to give plausible theoretical shape to the two notions was the co-consciousness relation. But nothing in bringing out the ideas of continuity or simplicity relied, arguably, on the co-consciousness relation being *symmetrical.* It seems that we could retain the suggestions concerning experiential continuity and simplicity, while rejecting the proposal regarding the symmetrical nature of the co-consciousness relation. The cases in which symmetry *does* seem to be crucial for understanding the co-

[25] This figure, arguably, masks the *continuity* of the movement. But it can be understood as representing only an aspect of the phenomenology - the idea that a unified movement 'builds up' during the interval.

consciousness relation are those of simultaneous occurrences. On Dainton's view, the co-consciousness relation also unifies experiences which are present at the same time (2006/2000: Ch 3, 4). And it is plausible to understand simultaneous contents as symmetrically related. But taking seriously the intimations of temporal experience might suggest that it has a different underlying structure than that of simultaneously presented objects or contents.

## **IV** Hoerl and Phillips: The Priority of the Interval

While differing with regards to the motivations they provide for the Process View[26] - with Hoerl (2013, 2017) leaning towards the motivation being the relational view of perception and Phillips (2010, 2014) highlighting the way experience is pre-theoretically manifest – both paint a relevantly similar picture of the features of the position. On their view, a priority is accorded to experience during whole intervals over experience in instants. This idea, I will argue, does not allow us to successfully develop the Experiential Process Thesis, which (as we've seen) is at the core of the Process View.

Both Hoerl's and Phillips' respective projects involve detailed arguments against the Principle of Simultaneous Awareness, historically important in motivating the Retentional View (Phillips 2010; Hoerl 2013).[27] Recall that in the previous section we've seen that instead of simultaneously presented content, on Dainton's Extentionalist View the co-consciousness relation is that which provides the 'glue' between the phases of changes and movements on the scale of the specious present. Hoerl (2013) and Phillips (2010) both reject the proposal. Hoerl argues that the Dainton's overlap theory, involving the idea that

[26] The 'Naïve View' in Phillips' terminology, the Extensional View in Hoerl's (2013) work.

[27] See fn. 14 for further details.

the relation of co-consciousness explains our experience of time, confounds the unity of different specious presents with the possibility of temporal experience.[28] While co-consciousness might play a part in the unity across distinct 'duration-blocks' or specious presents, it does not have a role to play in explaining, for example, the perception of a ball's movement or of a musical phrase. Hoerl develops an idea presented earlier by Tye, noting that "[i]t is hard to see what, if anything, Dainton's appeal to the idea of a relation of co-consciousness actually adds to the basic thought, shared by both Tye and Dainton, that when I hear *do* followed by *re*, for instance, it is because I have one experience in which both *do* and *re* figure" (2013: 405; see also Phillips 2010: 188).[29] The idea of 'one experience' in which phases of non-inferentially experienced change figure is the key to the proposal from Hoerl and Phillips: the specious present is that which makes possible and explains our perceptual experience of temporal properties. In both Hoerl's and Phillips' accounts this idea is developed in relation to a challenge from Fara (2001), which questions our ability to perceive change.

Fara's challenge goes as follows: consider the case discussed by Broad (1923), involving the difference between the way in which we are aware of the hour hand having moved, and the way in which we are aware of the second hand moving. First, the hour-hand of the clock. We do not visually perceive its movement, as in the course of its trajectory during a perceived temporal interval "we cannot visually distinguish any of the positions it is in during that interval" (Fara 2001: 926). The experience of the movement of the second hand of the clock seems to contrast with that of the hour-hand. But the experience of the second-hand's movement, Fara suggests, is also composed of phases during which the hand moves between positions which are not perceptually distinguishable. As Fara notes, "[i]f the reason that the hour-

[28] Or at least "does not go far enough in recognizing the significance of the distinction" (2013: 45).

[29] This response might be possible: what does the claim that I have one experience in which both *do* and *re* figure add to the idea that I am co-consciously aware of *do* and *re*?

hand strikes us as still-looking for any twenty-second interval is that we cannot visually represent a change in position as small as, say, 1/6° (on a normal-size clock), then the *second*-hand should look still for any 1/36 second interval, for *it* changes its position only that amount during such an interval" (2001: 926-7). The challenge comes up here when we consider our experience of movement as a collection of shorter experienced phases. In these shorter phases (e.g., a 1/36 second interval) it does not seem like we can discriminate between positions of the second hand, and it appears that there is no way in which such phases (during which changes of position cannot be perceptually discriminated) can amount to a discernable perception of change over longer intervals. It appears that there is no way for the second hand to be experienced in movement.

The answer to the challenge, according to Phillips and Hoerl, is that we must look not at instants, but rather at the "temporal field" (Phillips 2011: 10ff.) or the interval of the specious present, for the explanatory and metaphysical basis of the experience of movement and change.[30] It is the length that the second hand (or any object) covers in the specious present which determines whether I perceive the movement or change (Phillips 2011: 10-11; Hoerl 2013: 390). Fara's challenge assumes that in explaining movement we start from instants, from 'short-lived sensory atoms' (Phillips 2011: 2), during which changes in position are indiscriminable, whereas on Phillip's and Hoerl's suggestion what we experience as happening in instants depends on what is experienced as happening in the wider horizon of the temporal field. The length of the specious present sets the upper bound for this longer period (half a second to a second in length, depending on the account), and our indisputable ability to distinguish between the positions or states at the beginning and end of this upper bound is what allows us to perceive movement

[30] Fara's own answer to the challenge is that minute changes are in fact perceived but not *noticed* (2001: 997-8). As Phillips persuasively argues, the suggestion is implausible. One serious problem is that Fara's solution implies there being no limits to the perceptual discriminations we can make (Phillips 2011: 6).

and change during the interval. The challenge from Fara, which is based on the assumption that experience over an interval is composed of experiences during parts of that interval (e.g., 1/36 second intervals), does not take off.

Now, according to Phillips (2011: 11) and Hoerl (2013: 389) the idea of the priority of the temporal window - of the specious present - is compatible with *both* with the Process, or Extensionalist, view, and with the Retentionalist Model.[31] This already spells trouble for the Experiential Process Thesis, which is uniquely attached to the Process View. The Experiential Process Thesis, as I noted, seems to be the central motivation for the Process View, as also recognized by Phillips (2014a). How can it fit together with a suggestion regarding the explanatory and metaphysical priority of the interval? Let us return to an example similar to the one I presented in the previous section.

Consider the musical phrase from Debussy's Arabesque no.1, presented above. Now, take a specious present (of around a second) divided into three temporal phases t1, t2, t3. The idea animating the Process View, as I noted, is not fully captured by the suggestion that we perceive a succession of notes during the interval. The Process View implies that temporal experience itself unfolds over time. This can be seen as motivated by our pre-reflective sense of experience itself progressing through time (expressed by the Experiential Process Thesis). And this pre-reflective grasp of experience progressing or unfolding over an interval involves our experience of *covering* that interval in time. This means that Debussy's phrase, for example, is experienced as 'building up' during the perceived interval. This idea can be schematically illustrated by the following figure:

[31] According to Hoerl, the individuation afforded by the interval of the specious present "is pitched at a level at which it is not possible to decide between what I have called an intensionalist [i.e. retentional] or an extensional account of temporal experience" (2013: 389). Phillips notes that "the core components of the account [concerning the priority of the temporal field] can be endorsed from a retentional perspective" (2011: 11).




Figure II: Listening to a Musical Phrase

The phrase is gradually articulated throughout the interval. This is the meaning of experience itself pre-reflectively given to us as covering an interval.[32] Now, it is plausible to think that the temporal structure of this phrase is immediately experienced in the context of the temporal 'window' of the specious present. But what kind of *explanatory* role can the specious present play with regards to the description of the experience just offered? It is not clear how a state which obtains throughout the interval can account for a progression which antecedes it. The idea that through t1, t2, and t3 we experience the unity of a phrase 'building up' in time seems to be independent of the idea that we immediately experience changes in the context of the specious present.[33]

[32] A simplified example would be that if the phrase comprises the notes C-D-E-F, the experience of the phrase would unfold as C, then C-D, then C-D-E, and then C-D-E-F.

[33] It might seem that giving up the metaphysical and explanatory priority of the specious present would not allow us to frame a proper solution to Fara's challenge. But the priority of the 'temporal field' does not seem to be the only alternative to a view of temporal experience as composed of 'short-lived sensory atoms'. It could be that taking as fundamental a primitive property of qualitative progression, as I will suggest in the next chapter in relation to Bergson's view, might allow for a solution to the challenge which also accommodates the Experiential Process Thesis. This suggestion, however, will not be pursued in the present context.

## Conclusion

The Puzzle of Experiential Process concerns the way we can successfully develop the phenomenologically robust insight at the heart of the Process View: temporal experience appears to us as itself unfolding through time. As I've tried to show, contemporary versions of the Process View (Dainton 2006/2000, 2003, 2008a, 2014, 2016, 2017a, 2017b; Phillips 2010, 2013, 2014a, 2014b; Hoerl 2013, 2017) are not fully up to the task of developing this insight in a satisfying way. They do not allow, I argued, to bring out the idea of 'covering an interval,' expressing that which is at stake in upholding the Experiential Process Thesis.

# **Part II** Bergson & Contemporary Thought

# *3*

## Substantiating the Experiential Process Thesis: A (New) Path to Bergson's *Durée*

In the preceding chapters, I examined recent theoretical proposals concerning aspects of temporal experience. I began, in the first, by looking at reductive (Non-Veridicalist) and eliminative (Veridicalist) accounts of flow or dynamic passage. I argued that while reductive proposals do not successfully answer to concerns regarding coherence (Le Poidevin, Paul) and/or explanatory adequacy (Le Poidevin, Paul, Prosser), eliminative views (Deng, Hoerl) are phenomenologically unsatisfying. In the second chapter, I suggested that varieties of the Process View of temporal experience (Dainton, Phillips, Hoerl) fail to accommodate the experientially robust insight which provides the most powerful motivation for the position. This insight is captured by what I called the Experiential Process Thesis: we have a pre-reflective sense that our experience of change itself unfolds through time.

It is time for a positive suggestion. In the present chapter, I will argue that Bergson's account of temporal experience provides the resources for a potentially successful articulation of the Process View. In particular, I will argue that it is successful insofar as it can accommodate the Experiential Process Thesis, in contrast with alternative Processual accounts.

The suggestion I will be making brings together themes from both preceding chapters. As borne out by the work discussed above, the issues of (i) flow in temporal experience and (ii) the debate concerning the temporal contours of experience are typically approached apart in the literature.[1] My argument in this

[1] Lee, for example, explicitly distinguishes these two aspects as separate objects of inquiry in the opening section of 'Temporal Experience and the Temporal Structure of Experience': "The experience of time passing, a central part of human experience of the world, has a number of philosophically puzzling features. Perhaps the most salient is the way that our point of view seems

chapter, by contrast, locates a close connection between the two themes when considering matters from the perspective of the Processual model I develop in relation to Bergson's work.

The heart of the Bergsonian proposal, I'll show, involves underlining the role of that which Bergson calls *durée*, or duration,[2] in temporal experience. On a first approximation, the term is meant to capture the continuous qualitative progression, or transition, which is a primitive property of experience broadly, and of temporal experience in particular.[3] *Durée* signifies the qualitative flow of experience, that which the reductive and eliminative accounts discussed in the first chapter attempt (and arguably, fail) to explain or explain away. The account of temporal experience that will emerge from my reading of Bergson's work takes *durée* to be one of the two aspects of what I shall term an 'ontology of temporal experience,' in the context of which *durée* is endowed with a basic role in relation to the temporal properties of succession, intervals (duration), and simultaneity. And appreciating this role, I will argue, can allow us to a bring out what the Experiential Process Thesis, central for the Process View, entails.

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to glide seamlessly from one moment to the next, somehow caught at the cusp of the present as it moves ever forward. How do we account for this sense of motion through time? But in addition to this elusive experience of time passing, we have temporal experience in a less mysterious sense: conscious experience is directed on temporal phenomena, such as the duration of sounds, or the temporal order of visually perceived occurrences. We perceive events playing out in time in just the same sense in which we perceive their more static features, such as shape, texture, color and illumination" (2014: 1).

As noted in the previous chapter, Dainton brings up the issue of flow in the context of an account of temporal experience (2006/2000: 173, 176-7), but this issue does not have a direct bearing on the Process View as defended in his work (the Extensional view, in his influential terminology).

[2] *Durée* is typically translated to English as 'duration', but as we shall see the meaning Bergson attaches to the term is sharply distinguished from the common meaning of the term in English (duration as indicating a length or extent of time). The meaning of the term in French likewise refers to an extent or length of time, but it also denotes a qualitative aspect of 'persistence' or 'permanence,' and it does not seem implausible to say that it has also been influenced at least somewhat by the impact of Bergson's work in France (e.g., Bergson's notion appears in the Larousse dictionary entry on *durée*). In order to indicate the difference with the English 'duration', Moore (1996) coins the term 'durance' as a translation of Bergson's *durée*. This neologism is unnecessary and rather cumbersome, I think. I follow Mullarkey (1999) and Dainton (2017a) in using the original *durée*. The term is translated in Bergson's works in English as 'duration,' and I shall not be making any changes in passages quoted from the translations.

[3] The concept of *durée* forms a sort of prism through which Bergson approaches a wide range of philosophical problems throughout his published work – for example, the measurement of time in science (in TFW and DS, primarily), the nature of free will (in TFW), the mind-body problem (in MM), the relation of the living world to time (in CE) – but in the present context the spotlight will shine on the way *durée* figures in an account of temporal experience.

Before we get there, there is some interpretative work, and some assessment of Bergson's ideas to be done, which I will approach as follows. In the first section, I'll outline Bergson's view of temporal experience, leaving aside detailed arguments in support of the position and a discussion of the relation to the Process View. In the second section, I'll examine a number of passages which allow us to identify Bergson's position as a version of the Process View, adding to considerations from Dainton's (2017b) recent paper on Bergson. The third and fourth sections form the core of the chapter, and concern arguments in favour of Bergson's account of change perception. In the third section I will flesh out the details of a 'pure introspection' approach, presented throughout Bergson's writings on temporal experience. This experientially demanding approach, I'll argue, is arguably successful in allowing us to grasp the idea of *durée* in relation to particular phenomena, but in other respects it faces substantial limitations.

These limitations can be overcome, I will suggest, in the context of an approach I outline in the fourth section, which I shall denote as 'introspective-theoretical'. The argument in this section turns on considering the Experiential Process Thesis and the way it can be accounted for by the Bergsonian 'dual-aspect' account, in contrast with other versions of the Process View. I will conclude, in the fifth section, by briefly discussing the relation between experience and method as it comes up in my argument in the third and fourth sections, comparing my proposal with aspects of Deleuze's (1991 [1966]) influential reading of Bergson.

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This chapter can be read as four separate contributions, comprising: (i) an introduction of Bergson's view of change perception; (ii) an interpretation of Bergson's position as a version of the Processual model of temporal experience; (iii) a presentation and assessment of Bergson's introspective arguments for his view of change perception; (iv) an expansion upon Bergson's introspective arguments via recourse to an idea central for the Process View. There are, however, two overarching aims which intertwine throughout: (a)

defending Bergson's view of temporal experience, and (b) developing a version of the Process View which satisfyingly accommodates the Experiential Process Thesis.

## **I** Bergson's Dual-Aspect Ontology of Temporal Experience

In this section, I'll introduce Bergson's view of temporal experience. I'll examine what Bergson means by the terms 'homogeneous multiplicity' and *durée*, and explore the relation between the two in the context of an overall ontology of temporal experience. By the term 'ontology of temporal experience' I wish to indicate an account of the features of our experience of time, and the differences and relations between these features.[4] While I focus on features as experientially manifest (in the present section and in the third), the focus is not exclusive (as we shall see in the fourth section). The interpretation I'll develop here, in its most general outlines, takes the unfolding of discrete states in temporal experience to be partially dependent upon *durée,* with the latter being a primitive property of continuous progression.[5]

### *Measurement and Temporal Experience – A Preamble*

My discussion throughout this section is interpretative, and will involve some work of contextualizing beyond the bare bones of Bergson's position. Due to the context and aims of this chapter and the overall

[4] 'Ontology of temporal experience' can be substituted throughout with 'account of temporal experience' without missing out on anything essential to my argument. The idea of an ontology of temporal experience, however, is meant to signify an account which accommodates salient differences in experience, and relations of dependence between differing aspects. For relevantly similar use of 'ontology of experience,' see Soteriou (2013; e.g., Ch 2, pp. 152-3).

[5] As it is presented and developed in the present chapter, the account of temporal experience is not meant to be laden with any assumption concerning the relation between experience and the world. The introduction of the term 'ontology of temporal experience' and the view of experience in this chapter should be seen as neutral with regards to the debate between direct realist and representationalist conceptions of experience, and does not involve taking sides in a debate on the mind-body problem. It should, at the same time, not be seen as excluding there being interesting relations obtaining between temporal experience as discussed here, and an ontology of the living world, or of the physical world. These are all issues that Bergson took a stand on, but the account of temporal experience that I will develop in the chapter does not hinge on these debates.

shape of the research, however, my engagement with the secondary literature is relatively compact, with the aim being to give a sufficiently detailed, but not overly crowded, picture of Bergson's account of temporal experience. Now, whilst my goal is to bring out what is most relevant in the context of a debate about temporal experience, it is important to note at the outset that it partially overlaps with but largely excludes the discussion of two issues which are significant for the context in which Bergson develops his position on change perception, and which are of great independent interest: Bergson's critique of the measurement of time in the mathematical sciences,[6] and his view on the basis, or foundation, of the measurement of time in physics.[7]

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[6] A first aspect of the relevant critique comes up when we take note of the fact that time as measured in the mathematical sciences involves considering only simultaneous occurrences which lie at the ends of temporal intervals. To predict by means of equations "that an incident will occur at the end of a certain time *t,*" Bergson notes, "is simply to say that one will have counted, from now until then, a number *t* of simultaneities of a certain kind" (CM 11; see also TFW 116). What we are indicating by means of the calculation is an occurrence which will take place after a certain number of quantifiable temporal stages. This applies to any extent of time - in order to measure a period of time, any period of time, we are focusing only on the beginnings or ends of events: "however small the interval is supposed to be, it is the extremity of the interval at which mathematics always places itself. As for the interval itself, as for the duration and the motion, they are necessarily left out of the equation" (TFW 120).

Why would that be a problem? Of importance for Bergson here is that when we measure time in this way we are leaving out that which occurs in or throughout intervals of time. We are neglecting the continuous, occurrent nature of the lived experience of time, casting aside that which is "being done" in favour of the "already done" (TFW 119). Now, inherent in Bergson's discussion of this issue are two things: (a) a positive idea regarding what the 'lived experience' of time involves, aspects which I examine in the present section; and (b) the idea that we are trying to capture the lived experience of time by means of mathematical treatment. The limitation arises when mathematical measurement is meant to encompass temporality as we experience it.

A second aspect of the criticism of the measurement of time in the mathematical sciences comes up in an argument to the effect that the mathematical measurement of time does not capture the nature of physical movement and change. The heart of this argument involves the idea that taking the real number continuum as exhaustively descriptive of time, or space-time, precludes a coherent understanding of change. Bergson pursued this argument adamantly in his discussion of Zeno's paradoxes, which recurs in each of his main works. For a thorough account of Bergson's engagement with Zeno's paradoxes, see Barreau (1969a, 1969b).

[7] Bergson's key idea, in this respect, is that the mathematical measurement of time, and particularly the notion of simultaneity that it employs, itself presupposes the lived experience of time. This line of argument, while arguably implicit in the Bergson's early work, is developed in detail in *Duration and Simultaneity*. The idea of simultaneity in clock-time, Bergson argues, supposes the apprehension of 'real time,' or time that is endowed with continuity and flow.

Bergson's complex engagement with relativity in *Duration and Simultaneity* has recently begun to receive heightened attention from scholars in the philosophy of science. This is due, at least in part, to the surge of interest in the topic of time in the philosophy of physics triggered by significantly different views of the nature of time in relativity and quantum physics. See Canales (2015) for an fascinating, historically informed account of Bergson's engagement with the theory of relativity. The 2011

As the measurement of time is not the primary concern of a theory of temporal experience, these ideas will not be my focus at present. A theory of change perception might, and indeed does frequently involve considerations relating to the way time is measured, but these are only tangential to the key concern: developing a compelling account of the features manifest to us in our experience of temporal properties.

The critique of measurement does, however, partially overlap with ideas which have crucial bearing on the discussion of the ontology of temporal experience. The ideas in this region of theoretical overlap are the concept of 'homogeneous multiplicity,' and the contrast it involves with *durée*. Let us consider these one by one.

### *Homogeneous Multiplicity*

Bergson presents the idea of a 'homogeneous multiplicity' in the context of a detailed account of the relation of number to space in the second chapter of *Time and Free Will* (TFW 75-99). Number, Bergson first notes, "may be defined in general as a collection of units … Every number is one, since it is brought before the mind by a simple intuition and given a name; but the unity which attaches to it is that of a sum, it covers a multiplicity of parts which can be considered separately" (TFW 75-6). Thus far the idea, while not uncontroversial,[8] is straightforward. We are taking into account the way we consider a number by the mind, and the idea is that it is a collection comprised of separable parts. The number 6, for example, involves considering the number both as a unity, and as a collection of 6 separable units.

When we enumerate, according to Bergson, we do not merely consider units as such. We assume that the units we are counting are identical to one another, neglecting individual differences in favour of that which

critical edition of *Duration and Simultaneity* in French, edited by Elie During, provides an excellent resource for examining the work in its philosophical and scientific context.

[8] See fn. 11 below.

is common. When counting students in a classroom, for example, we set aside differences between the students, which might come up, for example, when we call out a list of attendance (TFW 76). We must however, Bergson contends, still keep in mind a difference or distinction between the students, otherwise "they would merge into a single unit" (TFW 77). Consider looking at the students in the classroom: in order for us to enumerate them, the students have to differ in their spatial position. Space, here, is what allows for the distinction between terms crucial for counting perceived objects or entities. So far, this is uncontroversial. But the idea that the units we are considering together are spatially organized, Bergson more interestingly adds, applies also to cases in which we are counting the units in our imagination or thought. One contrasting proposal regarding enumeration in imagination or thought would to consider it as a process, in the sense of it being a successive apprehension of single units. When we consider the units successively in this way, however, we would have to do only with a single student at each point in time. *Counting* the students, rather than just considering them one by one successively in imagination or thought, supposes that we "retain the successive images and set them alongside each of the new units which we picture to ourselves" (TFW 77). Qualitatively identical units must not only be apprehended as distinct, they must also be considered simultaneously in order for them to be counted. As with the case of visually perceiving the students, the idea of space is also essential here, only that we are now speaking of an "ideal space" (TFW 77), rather than physical or 'real' space. Space, as common both to the visual perception of the units and to enumeration in thought or the imagination, is that which enables us to distinguish a number of qualitatively identical terms from one another, a principle of quantitative differentiation (TFW 95).

From this we can glean the idea of a quantitative or 'homogeneous multiplicity'. By this term Bergson means a collection or set of distinct units which are qualitatively identical, or identical in kind. In order for us to enumerate or count these terms, Bergson suggests, we need to have recourse to an organizing

principle – identified as space - which both 'brings together' and 'keeps apart' qualitatively identical terms as distinct.

Bergson's move is then to consider the idea of number in general to depend on what he calls an "intuition" of space (TFW 77, 94-5).[9] Space, real or ideal, perceived, imagined, or conceived, is the medium by which we enumerate, and that which makes possible mathematical operations broadly considered.[10] Importantly, the idea is not that all or most of our mathematical operations involving numbers directly rely on the perception or conception of space. We perform many mathematical operations habitually, and we manipulate signs according to fixed rules. In these cases we need not make any recourse to space in perception or thought. It is only when we wish to gain insight into the *basis* of our idea of number, when we wish to have a "clear idea" (TFW 79) of number, that we can notice that it implies space. The insight Bergson is presenting here, it seems, would apply unproblematically only to relatively small numbers. In order to attain the general thesis Bergson is working at, that space is implied in number broadly considered, we would then need to consider our general conception of number as deriving from these simple cases.[11]

[9] Distinct from his later use of the term 'intuition', to be discussed in sections 3 and 5.

[10] As Sinclair (2019a: 42-3) interestingly shows, Bergson's ideas on number and its relation to space can be seen as anticipated, though in succinct form, by Ravaisson's argument concerning number and space in *Of Habit* [*De l'habitude*] (2016: Ch 1 [1838]). Ravaisson's thought had a formative role in the development of 19th century French philosophy in general, and also in the genesis of a number of Bergson's key ideas (see Sinclair 2018; 2019a: 8-10; 2019b: Ch 5, for instructive treatment of Ravaisson's influence on Bergson).

[11] Russell criticizes Bergson's idea of number, and the claims concerning the relation of number to space, in his 1912 *Monist* article on Bergson, reprinted in a 1914 exchange with H. Wildon Carr with a rejoinder by Russell, and later reprinted in his *History of Western Philosophy* (1912: 334-7; 1914: 13-6, 33-4; 1946: 829-31). There are two aspects to Russell's criticism. The first targets what Russell takes to be a problematic connection between the idea of number and a distinctly *visual* perception of units in space. The ideas concerning the relation of number to space, Russell thinks, "are mere autobiographical observations of a visualizer, and illustrate … that Bergson's views depend upon the predominance of the sense of sight in him" (1912: 336). This might seem justified when noticing that Bergson writes that "every clear idea of number implies a visual image in space" (TFW 79). But this rather unfortunate formulation does not bring out Bergson's view (as discussed above), which is not essentially tied to space as visually perceived or imagined, but to space as a principle of quantitative differentiation (on this point, see also Carr, in Russell: 1914: 27-8; Čapek 1971: 181; Sinclair 2019a: 43-4).

We do not need, however, to keep in mind a conclusion regarding the intrinsic connection between number and space in order to appreciate the features of Bergson's view regarding temporal experience, at least as I interpret it in this chapter. What we should keep in mind is the notion of a 'homogeneous multiplicity'. By 'homogeneous multiplicity' Bergson means a collection of distinct terms which are qualitatively identical, or identical in kind. In this section, I have discussed the context in which Bergson presents the notion, but whether or not Bergson's view successfully applies to the conception of number in general, and whether or not his argument with regards to space being necessary for our conception of number is persuasive, are issues which we do not need to take a stand on in order to obtain the details of Bergson's account of change perception which follows.

## *Durée*

"*Durée*," as Arnaud François notes in a recent introduction to Bergson's thought, "is Bergson's primary [la première] notion, that is to say it is Bergson's point of departure, and the notion to which he always returned" (2008b: 13).[12] My focus here is on the way the notion figures in temporal experience, the first

Russell's second objection is that Bergson's view of number confuses three different things: "(1) number, the general concept applicable to the various particular numbers; (2) the various particular numbers; (3) the various collections to which the various particular numbers are applicable" (1912: 335). While Bergson aims to discuss number in general, Russell contends that his argument covers only the latter aspect – "the various collections to which the various particular numbers are applicable". This criticism indicates a deeper issue with regards to Bergson's view, which goes far beyond my present scope. As Čapek notes, though Bergson's view is controversial, it is not as isolated in the philosophy of mathematics as it might seem from Russell's criticism; a number of prominent mathematicians have held the view (1971: 183). Lacey notes that Bergson could have a way to respond to Russell's second critique, by insisting on the idea of every number being a collection of units (1989: 18). The debate between Russell and Bergson on the nature of number does not have a direct bearing upon the points I wish to make with regards to Bergson's view of temporal experience.

[12] It is not difficult to find passages in which Bergson is explicit about this being the case. In 'The Stating of Problems,' the second of two introductory essays to his thought published in 1934's *The Creative Mind* [*La Pensée et le mouvant*] (though written more than a decade earlier), Bergson emphasizes that his philosophical method is oriented towards "finding true duration [durée réelle]" (CM 34). In a 1915 letter to Høffding, he writes:

> In my opinion, every summary of my views will distort their general nature and will by doing so expose them to a host of objections, if it does not set out from in the first place, and constantly return to, what I regard as the heart of the doctrine: the intuition of duration. The representation of a multiplicity in the form of 'reciprocal penetration', altogether different

issue to which *durée* is attached in Bergson's thought, and a topic which he tackles in each of his major works. *Durée*, I will show, is one of two aspects of an overall account of temporal experience emerging from Bergson's work. The other aspect, we shall see, has to do with the idea of 'homogeneous multiplicity'.

We can make a first attempt at appreciating the notion of *durée* as an aspect of temporal experience by considering an example favoured by Bergson, the experience of hearing a melody (an example I will discuss further in the third section of the present chapter). Bergson turns to this case when he first characterizes *durée, or* "pure *durée* [La durée toute pure]" (TFW 100) in *Time and Free Will*. Consider the opening of Bach's Cello Suite #1 in G Major, for example:



When we listen to a musical phrase such as this, Bergson suggests, we hear the notes in the phrase or melody "permeating [se pénètrent] one another" (TFW 100). The idea is that we do not (only)[13] hear notes succeeding each other as "one point alongside another," but rather enjoy an experience in which the notes 'melt' (TFW 100) into each other to form an "organic whole" (TFW 100). What we gain from this kind of experience is a first understanding of *durée* as "succession without distinction" (TFW 101), or "succession without separation" (DS 44).

How does this serve to distinctly latch on to an aspect of our experience, and how can the musical example lead us towards the insight? There is some unpacking, as well as some elaboration, to do here in order to successfully understand what we're being asked to notice. We can begin by observing that the idea is to a

> from numerical multiplicity - the representation of a heterogeneous, qualitative, creative duration - is the point from which I set out, and to which I have constantly returned. (EP 443)

[13] As I show below, on Bergson's view temporal experience (and auditory perception in particular) also involves the perception of successive instants or phases.

significant extent presented as contrastive (we do *not* hear the notes as "one point alongside another"; *durée* is a succession *without* distinction or separation). A good starting point, then, is examining the contrast that *durée* is meant to involve, in particular with the way 'homogeneous multiplicities' figure in our experience. More specifically, we can first proceed to elucidate the kind of *continuity* which I take to be uniquely singled out by the notion of *durée,* in relation to a continuity which comes up when perceiving objects or parts of objects.

Recall the case of visually perceiving objects laid out in space (e.g, students in the classroom), which was presented in the context of Bergson's discussion of enumeration. We can say that musical instruments dispersed in a practice room, for example, are perceived as *discontinuous* in two senses: first, they are discontinuous in the sense that they are experienced as separate entities, and second, they are perceived as discontinuous in the sense of being separated by the spatial distances between them. Now, we can also take spatial objects or parts to be perceived as discontinuous only in the first sense. Consider perceiving tightly packed objects or parts of objects lying next to each other, or adjacent shapes or figures in a diagram. We are here, note, only taking account of our perceptual experience, and not the relevant physics. The things in this case are experienced as discontinuous in the first sense – they are separate objects or parts. But the objects are now continuous, in the sense that they are arranged gaplessly. We can, then, make the quite simple observation that we experience continuity between objects, or parts of objects, as they lay side-by-side in space without any gaps. The idea of a 'homogeneous multiplicity,' of a collection or set of distinct terms which are identical in kind does not exclude there obtaining gapless continuity between them. Let us now shift our attention back to the experience of the melody.

One way to think of our experience of a musical phrase or a melody is as a succession of distinct notes or temporal phases. Indeed, it seems difficult to think of an experience of music which does not involve a

succession of discrete phases at all (as will be noted in section 3 of the present chapter). But for the moment we are considering the view that this is the only thing the experience involves. Recall, in this context, the Veridicalist position regarding dynamic passage (Hoerl 2014a, 2014b; Deng 2013a, 2013b, 2017, 2019) that I looked at in the first chapter. All there is to temporal experience, on this account, is a succession of temporal stages (e.g., Deng 2017: 246-7). As Deng presents the view, "[w]hen we perceive a succession of events, we simply experience one event as happening after the other" (2019: 11). Now, it is important to note that on this view we can certainly conceive the experience as *continuous,* in the sense of there being a smooth connection between the terms manifest to us (Deng 2017: 244; Hoerl 2014b: 93). But there is nothing special over-and-above a succession of terms, such as 'flow' or 'passage,' that we should be trying to account for. There is an appeal to the Veridicalist view, at least insofar as it seems to simplify the theoretic landscape by pushing aside the *prima facie* puzzling idea of temporal flow, while also clearing the path for a B-theory-friendly account of temporal experience (see chapter 1, section 4).

Bergson's use of the melody example is meant to push against this kind of understanding of temporal experience. As I have noted, we can consider a 'homogeneous multiplicity' as exhibiting gapless continuity, and one way to consider the Veridicalist position is to say that it takes temporal experience to be exhaustively described by the notion. The temporal contours of the (non-inferential) experience of music, on the Veridicalist proposal, comprises – as does any kind of temporal experience– a gapless succession of temporal phases. As I noted above, when bringing up the melody example Bergson characterizes *durée* as contrasting with an experience of "one point alongside another" (TFW 100). He specifies this further in a passage which immediately follows, in which *durée* is differentiated from succession understood as "a continuous line or chain, the parts of which touch without penetrating one

another" (TFW 101).[14] We are invited to notice that there is in the experience of a melody (as exemplifying broader aspects of temporal experience) something which contrasts with the continuity on offer by the Veridicalist proposal.

Now, we should be careful to note that Bergson does not at all wish to exclude the idea of gapless continuity from *durée*. On the contrary, Bergson repeatedly emphasizes that *durée* involves continuity in this sense (considering only his first and last major treatments of time and temporal experience, see: TFW 105, 109, 120, 124; DS 44, 50, 53, 54, 60, 62). There is surely gapless continuity in the case of listening to a melody (and in other temporal experiences). *Durée* in this sense involves the "uninterrupted solidarity of the before and after" (DS 50). The idea of a smooth or gapless continuity, then, falls under both 'homogeneous multiplicity' and *durée*. From considering some of the passages emphasizing continuity in Bergson's work, however, one might be tempted to think that it is *only* this kind of seamless continuity that he is trying to account for with the idea of *durée*. It is precisely because Bergson frequently insists on the seamless, or uninterrupted, continuity in *durée* that it is important to note that whilst it is part of the notion, it does not fully capture the idea. A Veridicalist interpretation of the continuity involved in *durée* would lose sight of a genuine contrast between *durée* and 'homogeneous multiplicity'.

The experience of melody is meant to bring out the idea of continuity which is not exhaustively describable by the idea of a smooth connection, or a seamless unity between distinct terms without any gaps between them. One way we can approach this thought is by comparing the kind of continuity we experience in the melody case with the continuity which comes up in perception of a spatial array. The helpful aspect of the comparison between the cases concerns the fact that it might allow us to attend to similarities and

[14] I take it that the "point" in the preceding quote, then, is not meant to refer to the mathematical notion of a point, but rather to a perceived 'point' or phase.

distinctions at a level more abstract than the comparison between content (spatial vs. musical) or modality (visual vs. auditory). It might allow us to experientially (phenomenologically) single out the kind of continuity characteristic of temporal experience. We might notice, when considering our pre-reflective experience of a melody, that the idea of gaplessness is only partially descriptive of its continuity. How should we best signify this 'extra' aspect, beyond gaplessness?

The ideas of notes of a melody 'permeating' (TFW 100), or "melting" (TFW 100) into one another are meant to bring into view the kind of continuity which is distinctive of *durée*. While arguably suggestive of that which is unique in the experience, it might not be difficult to associate these terms with processes or events that can be explained quantitatively.[15] Though Bergson later described the living world, and physical processes as underlined by *durée* (for the suggestion concerning living beings and *durée* see CE 18ff.; see CE 10-16 for a discussion of physical processes and temporality), it seems at least initially plausible that we would not need more than quantitative terms, falling under the notion of a 'homogeneous multiplicity,' in order to successfully describe these processes. The continuity uniquely attached to *durée* can be better captured, I wish to suggest, by the idea that *durée* involves a *continuous progression* or *transition* (for the idea of progression as associated with *durée* see, e.g., TFW 111, 126, 181, 190, 198; CM 194; DS 49; CE 4 for *durée* as "transition"; DS 44 for *durée* as continuous or "uninterrupted transition"; see TFW 125 for the idea of "dynamic progress" in relation to the experience of a melody). The suggestion is that beyond a gapless succession of discrete temporal stages, the continuity of temporal experience (as exemplified by the musical case) is characterized by a kind of 'directionality' which is

[15] One can perhaps also find here the suggestion of there being a close connection between *durée* and memory. The ideas of 'permeation' or 'melting' can be taken to imply a kind of 'fusion' between past and present in our temporal experience. I will explore the relation of *durée* to memory in the fourth chapter. Let us note, at present, that taking *durée* to (constitutively) involve memory does not in itself imply the kind of contrast I am here bringing out, between the continuity of *durée* and the continuity between parts of "a continuous line or chain". The contrast can be brought out, I suggest in this paragraph, by the idea of continuous progression or transition.

irreducible to a relation between gaplessly experienced discrete terms. The idea of *durée* as involving continuous progression or transition articulates a contrast with the kind of continuity we can find between terms of a 'homogeneous multiplicity'.[16]

Two further aspects of Bergson's discussion of the idea of *durée* should be underlined in the present context. The first is that *durée* is manifest as a unique quality or 'feel' of temporal experience. We apprehend temporality when tuned to *durée* as a qualitative characteristic of experience, it shows up as a "qualitative progress" (e.g., TFW 123). Recall, in this context, Paul's (2010) discussion of "animated change" as a qualitative 'feel,' that I explored in the first chapter, or William's (1951) description of the "jerk and whoosh of process, the felt flow of one moment into the next". One way to put it, then, is that *durée* is the qualitative aspect of the 'flow' of time or 'dynamic passage' as understood by the Non-Veridicalist views I examined in the first chapter. But as we can already see here, Bergson's notion of *durée* is more robustly characterized (and has a radically different place in his account of temporal experience, as we shall see in the end of this section and the subsequent argument in the chapter).

Secondly, Bergson considers *durée*, in *Time and Free Will* in particular, as a "heterogenous multiplicity" (e.g., TFW 121-3). This is meant to indicate a contrast with the notion of 'homogeneous multiplicity' which further elaborates the qualitative aspect of *durée*. A homogeneous multiplicity, recall, involves terms which are identical in kind. There are no qualitative differences between terms we are considering or experiencing together as a collection. The notion of *durée*, by contrast, is meant to bring up the idea that in temporal experience we experience continuous qualitative differences, or 'heterogeneity'.[17] A good

[16] We should note, however, that when we are talking of 'progression' or 'transition' we are not concerned with an "absorption in the passing sensation or idea," in which case we would be separating our present state from the former (TFW 100). This kind of absorption in the 'passing moment' would miss the insight of a continuous passage in experience.

[17] The idea of 'heterogenous multiplicity' has figured in much of the recent scholarship on Bergson, in large part owing to Deleuze's reading (1991 [1966]: Ch 2). The use of the term 'multiplicity' here, however, seems to be rather confusing. As Čapek notes, it is bound to suggest the idea of number or enumeration (1971: 120). It is then perhaps helpful to give up the idea of

way to bring this out, I think, is to notice that it involves understanding temporal progress as continuously manifesting something *new,* or qualitatively different (this maps onto the ideas of *durée* "unceasing variation" in CE 4-5; involving an "uninterrupted up-surge of novelty" CM 17; see also CM 107-8). The experience of time shows up as exhibiting constant 'newness'.[18] This idea, to be examined further in the fifth chapter, does not figure in the argument of the present chapter.

It does, however, allow us to fully appreciate what Bergson means when he says that *durée* involves "succession without distinction (TFW 101), or "succession without separation" (DS 44), which we noted in first presenting the idea above. The contrast *durée* involves is not only with an experience in which terms are smoothly, or seamlessly, connected. The are no distinct terms we can isolate, or make distinctions between in *durée*, but rather a continuous progression which manifests qualitative diversity.[19]

So far, I've provided an initial characterization of Bergson's *durée*, approached from a limited perspective of hearing a melody or musical phrase. I've considered four aspects: first, the seamless continuity of *durée*, a feature which can also be attributed to a 'homogeneous multiplicity'; second, *durée* qualified as a continuous progression or transition; third, the idea that *durée* shows up as a qualitative characteristic of temporal experience; and, finally, that *durée* involves constant 'newness' or variation in quality.[20]

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'heterogenous multiplicity' in favour of 'heterogeneity' or 'qualitative diversity' (1971: 120) to best indicate what Bergson has in mind.

[18] As we shall see in the fifth chapter, Bergson takes this aspect of temporal experience to be paradigmatically manifest in the temporal profile of certain agential experiences.

[19] It is due to the fact that *durée* involves transition without distinct parts or segments that we cannot directly measure it. In order for us to measure things or states, Bergson notes, we need to be able to isolate parts which are 'superimposable,' that is parts that are qualitatively identical. We can then add, compare, and perform mathematical operations upon them. Now, Bergson acknowledges that two magnitudes are rarely perfectly superimposable; an element of convention usually plays an important part (CM 10). But in the case of *durée* superimposition would be impossible, because "any effect of duration which will be superimposable … will have as its essence non-duration" (CM 10-11).

[20] An additional important aspect concerns the relation of *durée* to memory. I examine this in detail in the first section of the fourth chapter.

*Durée as the 'Immediate Datum' of Experience*

How does *durée,* then, fit within an ontology of conscious experience, and temporal experience in particular? In this sub-section, I underline two potential obstacles which might hinder a proper understanding of Bergson's account. A number of passages from Bergson's work might lead one to believe that *durée* exhaustively describes the nature of temporal experience. In *Time and Free Will*, for example, when Bergson contrasts features of temporal experience with the way temporality shows up in physical space, he writes:

> In consciousness we find states which succeed without being distinguished from one another; and in space simultaneities which, without succeeding, are distinguished from one another, in the sense that one ceased to exist when the other appears. Outside us, mutual externality [extériorité] without succession; within us, succession without mutual externality. (TFW 227; see also TFW 120-1)

Much later, in *The Creative Mind*, Bergson notes a difference between temporal features of conscious experience and matter as studied by physics and astronomy:

> It is true that alongside the states of consciousness which live this unshrinkable [irrétrécissable] and inextensible duration [*durée*], there are material systems which time merely glides over … such are the systems studied by astronomy, physics. (CM 20)

It could seem, from these passages, that conscious temporal experience is identified with *durée*, in comparison with the absence of a 'succession without distinction' from that which is "outside" or apart from consciousness, at least insofar as the latter aspect is describable by physics. It would be a mistake, however, to take *durée* as descriptive of the whole of temporal experience. What these passages imply directly is only that *durée* is intrinsically tied to consciousness, and is excluded from the systems studied

in the mathematical sciences.[21] They should not be taken to indicate that temporal experience does not have additional characteristics. It is more correct to say that *durée* is identified with what Bergson qualifies as 'immediate' experience. This is perhaps most clearly brought out in *Duration and Simultaneity*, when Bergson notes that *durée*, as a "continual flow … *is the only immediate datum of experience*" (DS 63; italics mine). *Durée* is the 'immediate data' [*données immédiates*] indicated in the French title of Bergson's first book, *Essai sur les données immédiates de la conscience* (see TFW 127, 128 for *durée* as immediate experience), which could have been perhaps titled *Essai sur la durée*.

We should tread with caution here, as Bergson's use of the locution 'immediate experience' differs significantly from the meaning usually attached to the term in recent thought. In contemporary philosophical parlance, immediacy indicates *non-inferential* experience. The idea is meant to mark out the character of perceptual experience as distinct from reasoning expressed in personal-level judgments or inferences.[22] In Bergson's work, 'immediate experience' is contrastive, not with personal-level judgments or inferences, but with mediation as comprising a construction of elements based on cognitive 'forms' or 'schemas' which bear the mark of aspects of the external world (in Bergson's first work; see TFW 223-4), or practice-oriented cognitive activity (in the later phase from *Matter and Memory*; see MM 209-11; MM 183-4), whether this construction is on the personal or sub-personal level.[23] Experiences

[21] There are significant differences between the two texts in terms of the way temporality is construed in relation to the living world and matter, but these differences do not play a role in this chapter.

[22] Chisholm offers an influential characterization of immediacy in this sense:

> It is sometimes said that to perceive something is to "make an inference" or to "frame a hypothesis." … But surely no perceiver, on opening his eyes in the morning, can be said to "infer" that he is surrounded by familiar objects... If we do use the words "inference" and "hypothesis" in this context, we cannot take them in the ordinary sense—in the sense in which a physician, studying symptoms, may be said to "make an inference" or "frame a hypothesis" about the disorders of his patients. Use of the psychological terms "unconscious inference" and "interpretation," in this context, serves only to obscure the fact that perceiving is not an inference, in the ordinary sense of the word "inference". (1957: 158-9)

[23] A full account of Bergson's notion of immediacy in proper context would involve considering the way the term is used in the work of philosophers which had an influence on Bergson's thought. This would include Maine de Biran's and Ravaisson's

involving 'homogeneous multiplicity' are shaped by these cognitive forms, and are in this sense 'mediate'. Despite an initial temptation to identify non-inferential experience with *durée*, which would arise from an improper extension of contemporary usage, Bergson's discussion should not be taken to have this implication. Bergson's use of the term 'immediate experience' does not entail excluding homogeneous multiplicity from playing a part in non-inferential experience.

What I wish to examine is Bergson's idea of temporal experience, perceptual experience of temporal properties in particular. I am then interested in examining the non-inferential, or immediate (as the term is used in contemporary philosophy) experience of temporal properties as it emerges from Bergson's thought. And as we shall see, immediate experience in this sense is not identified with *durée*, but also comprises the experience of 'homogeneous multiplicities' in a particular guise.

*Bergson's Dual-Aspect Ontology of Temporal Experience*

The idea of there being two aspects to non-inferential temporal experience is part of Bergson's general thesis about the ontology of conscious experience, which is presented in the last section of *Time and Free Will's* second chapter (TFW 128-39), and to which he also returns in later work (e.g., in 'Introduction to Metaphysics'; CM 191-2). There are, Bergson notes, "two aspects of conscious life" (TFW 128):

> [O]ur perceptions, sensations, emotions, and ideas occur under two aspects: the one clear and precise, but impersonal; the other confused, ever changing, and inexpressible. (TFW 129)

earlier employment of the term, as well as the meaning of immediacy in the empiricist and Kantian traditions. This lies beyond the scope of the present study.

There are a number of things worth mentioning here. Most importantly, in each of these modes of experience (perception, sensation, emotions, ideas) the distinction conforms to that between an aspect which involves a quantitative or 'homogeneous multiplicity,' on the one hand, and the qualitative progression of *durée*, on the other. The first aspect is "clear and precise," divisible into discrete states which are susceptible to measurement and can be mathematically manipulated, and the second is "ever changing," exhibiting continuous variation of quality. As is clear from a number of passages in *Time and Free Will*, by "confused" here Bergson does not mean mischaracterized or confounded. It should rather be taken in the etymological sense of '*fused-together,'* that is referring to the seamless connection manifest in temporal experience under the aspect of *durée*. In this sense *durée* is a "confused multiplicity" (TFW 87), though perhaps this is not the best of terminological choices.

The third distinction with regards to *durée* noted by Bergson here is that it is "inexpressible". This characterization is due to a thesis about the limitations of language: "[l]anguage," Bergson contends in *Time and Free Will*, "cannot get hold of [*durée*] without arresting its mobility or fit it into common-place forms without making it into public property" (TFW 129). The idea is meant to distinguish *durée* as available from a first person, or 'private' perspective, in contrast with language as a "public property," which successfully captures what is "impersonal," in this case a 'homogeneous multiplicity'. Bergson will later qualify this suggestion, by saying that we can represent *durée* in language by using terms or concepts which invoke or suggest its 'mobility' or 'fluidity' (CM 198, 224). Already in TFW, however, developing the idea of *durée* in language is arguably an instance of being able to "get hold" of this aspect, notwithstanding the challenges or qualifications involved. Putting aside a detailed discussion of the relation between language and experience,[24] we have in place, then, an outline of a distinction between two

[24] The 'ineffability' of *durée*, and the contrast between the third and first-person perspective brought up here, is nonetheless a highly consequential aspect of Bergson's account of *durée*, in particular of his views on *durée* and the scope of knowledge, which

aspects of the ontology of conscious experience which Bergson later compares to a distinction between "clear-cut crystals" and the "continuity of flow" (CM 192).

Now, as we've seen Bergson's distinction between two aspects of conscious experience cuts across perception, sensation, emotions, and ideas. It is the first of these that I'm concerned with in particular here, specifically the perception of change and motion (which is also of primary concern to Bergson himself).[25] The distinction between these two aspects as a difference in the perceptual experience of change comes up in a number of examples Bergson employs, some of which will be discussed in further detail in the third section of this chapter. A case Bergson turns to a number of times in order to bring out the distinction in change perception is of watching a shooting star. It is first mentioned in *Time and Free Will*:

> Think of what you experience on suddenly perceiving a shooting star: in this extremely rapid motion … there is a separation between the space traversed, which appears to you under the form of a line of fire, and the absolutely indivisible sensation of motion or mobility. (TFW 111-2; see also TFW 195)

The example is also brought up in *Duration and Simultaneity*:

> When we witness a very rapid motion, like that of a shooting star, we … distinguish its fiery line divisible at will, from the indivisible mobility that it subtends. (DS 49; see also 50-1)

deserve independent discussion. Of primary interest here is Bergson's view of 'absolute knowledge' in relation to *durée*, which he pursues in publications from 1903 onwards. The most important source for exploring the limitations of conceptually representing *durée*, and the relation between concepts and non-perspectival knowledge, is 1903 'Introduction to Metaphysics' (CM 187-237). The recently published College de France courses *L'idée de temps* (2019), delivered in 1901-2, and *L'histoire de l'idée de temps* (2016), delivered in 1902-3, contain detailed discussion of language and conceptual representation in relation to *durée* (in particular, in lessons 14-7 of the *L'idée de temps,* in IT 75-142, and lessons 1-4 of *L'histoire de l'idée de temps*, in HIT 17-85).

[25] My overall argument in this chapter is then meant to be neutral as to whether Bergson's view successfully applies to conscious experience, or conscious sensory experience more generally.

What this example is meant to suggest is that we can make a distinction between two aspects of the perception of change (or motion, in this case).[26] The first aspect is *durée*, which is here exemplified by the continuous progress or transition of the star, its "indivisible mobility," while the second is manifest in the "fiery line," the divisible series comprising the "successive positions of a shooting star" (TFW 195). This second aspect maps onto the relatively uncontroversial temporal properties of succession, temporal intervals, simultaneity (Phillips 2014a: 143).[27] These ideas, of succession, temporal intervals, and simultaneity are understood on Bergson's view as a 'homogeneous multiplicity'. The example of the shooting star brings out, in relation to non-inferential temporal experience, the general thesis noted above regarding a distinction between a "clear and precise" aspect of experience, which falls under the notion of a 'homogeneous multiplicity,' and the "ever changing" progression or transition of *durée*. A set of successive terms, such as the "successive positions of a shooting star" are identical in kind (qua temporal stages, moments, or instants) and are thus 'homogeneous' or quantifiable (TFW 112). Bergson presents, as exemplified by the case of watching a shooting star, what I would like to call a dual-aspect ontology of (non-inferential) temporal experience.

Identifying succession, intervals, and simultaneity as falling under the idea of a 'homogeneous multiplicity,' however, does not seem to do full justice to the way successive terms figure in experience. In a sense, 'homogeneous multiplicity' fits the bill: succession, 'non-controversially' understood, involves stages or phases which are distinct yet identical in kind. It is thus, at least in principle, measurable or quantifiable. We can enumerate and perform mathematical operations on the positions L1-L10 we

[26] The question as to how we can support, or argue for such a distinction is one I will return to in sections three and four of the chapter.

[27] More controversial, according to Phillips, would be to attribute *metrical* properties to temporal experience (i.e., consider it as taking place in clock-time, measurable in terms of seconds or minutes), as theorists sometimes do (e.g., Hoerl 2013, 2017). For discussion of this see Phillips 2013. Phillips includes 'order' as a relatively uncontroversial property. I mention temporal order further below.

perceive an object to cover in the interval t1-t10, for example. But when we think of the experience of succession, intervals, and simultaneity, we think of these properties as distinctly *temporal.* We consider the phases as having temporal order. I thus propose that we introduce a term which aligns with the outlines of Bergson's overall discussion, but which also acknowledges that these terms are approached from the perspective of a theory of temporal experience, and not merely from the perspective of theory of quantification or measurement. 'Homogeneous temporal properties,' I think is perhaps more fitting than 'homogeneous multiplicity'.[28]

*The Priority of Durée*

Bergson's claim concerning the ontology of temporal experience, non-inferential temporal experience in particular, is not only a claim regarding a distinction between homogeneous temporal properties and the qualitatively manifest transition of *durée*. The idea is also that *durée* assumes a fundamental or basic role in immediate change perception.

[28] The term I am introducing conforms to what Bergson calls "homogeneous duration" (TFW 128), which he distinguishes from qualitative, or 'true' *durée*. But it is not particularly helpful to consider this aspect as a kind of 'duration'. As we shall see in the rest of this section, Bergson's discussion suggests that there is a relation between *durée* and the 'homogeneous temporal properties,' in that *durée* is constitutive of the temporal ordering of successive terms. Insofar as the term 'homogeneous duration' is meant to indicate this kind of relation, it seems to already presuppose a relation between the two aspects of temporal experience which needs to be further described and established, and it also seems to confound their differences. 'Homogeneous temporal properties' remains neutral with regards to the relation, and indicates the distinction with regards to *durée*.

The notion of 'homogeneous temporal properties' I am introducing also maps, partially, on to the ideas of "homogeneous time" (TFW 109-10, 112, 228; CM 212) and "abstract time" (CM 212), to be mentioned towards the end of this section. The notions of "abstract time," and "homogeneous time," like the term 'homogeneous temporal properties' that I am proposing, include the experience of discrete phases of a succession, for example the successive phases of a pendulum's movement (TFW 109-10). But these notions are also broader, in that they refer to an overall *conception* of temporality in which discrete succession has an exclusive role (TFW 110, 228; CM 212). What I am capturing by the idea of 'homogeneous temporal properties' is the more limited sense, the perception of successive terms in change (and motion) perception.

The priority of *durée* comes up in a passage which opens Bergson's discussion of the two aspects of the ontology of conscious experience:

> We should … distinguish between two forms of multiplicity, two very different ways of regarding duration, two aspects of conscious life. Below homogeneous duration … a close psychological analysis distinguishes a duration whose heterogenous moments permeate [se pénètrent] one another; below the numerical multiplicity of conscious states, a qualitative multiplicity; below the self with well-defined states, a self in which succession implies fusion and organization. (TFW 128)[29]

It is hard to miss the insistence here on the idea that, in the distinction Bergson is drawing, one of the terms is more central or important. *Durée* is *'below'* the homogeneous terms, or more "fundamental" (TFW 129).[30] In what sense is it fundamental?

Recall that I'm here focusing on temporal experience, and non-inferential temporal experience in particular. I would like to suggest that we can approach a proper understanding of the priority of *durée* within an account of non-inferential temporal experience by considering two possible ways of unifying, or bringing together, homogeneous temporal properties, in the context of the two competing views regarding the nature of temporal experience. One of the two dominant positions on offer is the Retentional View. On this approach, temporal properties are contents of very short, or quasi-instantaneous, experiences. As the position is defined above, "experience of temporal duration or temporal structure does not itself have (significant) temporal structure. Despite this fact, each experiential atom may provide an extended window onto a temporally structured state of affairs" (see chapter 2, section 1). Is there a role

[29] As I noted, considering *durée* as involving "multiplicity," and considering discrete succession (either as continuous or discontinuous, in the senses discussed above) as "homogeneous duration" are both potentially misleading. See fn. 17 for a comment regarding *durée* as a 'multiplicity,' and fn. 28 for a note concerning succession as "homogeneous duration".

[30] For the distinction of the 'above' and 'below' see also CM 192.

for something like *durée* in this kind of account? This is not an uninteresting question, but Bergson's (brief) discussion of this view suggests a negative answer. We can see Bergson rejecting the approach, and contrasting it with his account of *durée*, in a passage from the second chapter of *Time and Free Will*.[31] There is thus no suggestion on Bergson's part that a Retentional View of temporal experience need refer to anything like *durée*, its priority or otherwise, when explaining the unity of successive terms.

A second way to consider the connections between phases or moments, or the unity between homogeneous temporal properties in the perceptual experience of change, emerges in the Process View of non-inferential temporal experience. On this model, "temporal experiences are themselves spread out (or extended) over time" (see chapter 2, section 1). It is when we turn to this kind of view, I would like to suggest, that the fundamental role of *durée* comes up. It is when we consider temporal properties as themselves unfolding in or through time, that we would want to defend the idea that *durée* has priority with regards to homogeneous temporal properties, or discrete successive terms.

The idea that *durée* has priority in the context of an account in which successive terms themselves unfold through time is implicit, I think, in much of Bergson's output on temporal experience. But we can here note two instances in which this is made explicit: (i) Bergson's discussion of the notion of 'homogeneous time' in *Time and Free Will*, and (ii) his suggestions with regards to 'abstract time' in 'Introduction to Metaphysics'.[32]

[31] See the next section of this chapter for discussion of the contrast Bergson draws between his position and the Retentional View.

[32] A third instance in which we can perhaps see Bergson asserting the priority of *durée* comes up in a passage I quoted above, in which homogeneous temporal properties are understood as 'homogeneous duration' which, Bergson adds, is the "extensive symbol of true duration [la durée vrai]" (TFW 128). It might seem plausible to think that we are here attributing to succession itself a kind of 'flow' or progression, when we consider the succession of distinct phases as a kind of 'duration,' and we are doing so in virtue of a *durée* which is 'fundamental,' or 'below' these properties.

There are two strands to the discussion of both of these notions. The first relates to temporal experience, and the second to a conception of time. Bergson approaches the idea of 'homogeneous time' in *Time and Free Will* by noting the distinction between the "mutual externality" of homogeneous temporal properties, and the "succession without mutual externality" of *durée* (TFW 108).[33] The two, however, are related: "between this succession without externality, and this externality without succession, a kind of exchange takes place, that is close enough to what [biologists] call a phenomenon of endosmosis" (TFW 109). The idea expressed in the two strands of the discussion which ensues concerns the way the terms relate to one another, the kind of 'exchange' which takes place between *durée* and the homogeneous temporal properties.[34] The first strand of the discussion, as I noted, concerns temporal experience. Bergson describes that which allows discrete phases, in this case those of a pendulum's movement, to form an experience which unfolds in succession:

> Owing to the fact that our consciousness has organized [the phases of a pendulum's movement] as a whole in memory, they are preserved and aligned in a series: in a word, we create for them a fourth dimension of space, which we call homogeneous time, and which enables the movement of the pendulum … to be continually set in juxtaposition to itself. (TFW 109-10)

The organization 'as a whole in memory' here refers to *durée*.[35] And what I take Bergson to be claiming is that it is in virtue of *durée* that the terms of a succession are *successively experienced,* 'aligned in a series' or organized. *Durée* is constitutive of the temporal order between distinct terms of a succession.

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[33] In *Time and Free Will*, and in this section of the book in particular, Bergson considers *durée* as existing only for a "conscious spectator" (TFW 110). In later work he will go on to propose that we should be open to attributing *durée* to the living and material world. The passage concerning 'abstract time' in 'Introduction to Metaphysics' is equivalent in the senses relevant to the present context, but is couched in terms of a view which considers the reality of *durée* as objective, or 'absolute' (CM 187ff., 222).

[34] Endosmosis is the process of fluid passing through a membrane to a region of higher concentration. The nature of this process, however, is not of direct relevance for my reading of the passage.

[35] For an account of the relation of *durée* to memory, see chapter 4 section 1.

This builds into the second part of the discussion, which concerns a conception of time. The close relation between the aspects of *durée* and the homogeneous temporal properties, Bergson suggests, might then lead us to consider temporal experience, and time more generally, to be exhaustively described by what I called the homogeneous temporal properties. *Durée* would then assume "the illusory form of a homogeneous medium" (TFW 110), and we would get a "mixed idea of a measurable time, which is space in so far as it is homogeneity, and duration in so far as it is succession" (TFW 228; see also TFW 110, 112). Bergson is then dealing in this aspect of the argument with a kind of conceptual illusion regarding the nature of time broadly considered, rather than with the relation between aspects of temporal experience. We do not need to flesh out this suggestion in detail here. What we should keep in mind is the first idea, that *durée* is basic in terms of 'aligning' successive terms as successive experiences.[36]

The priority of *durée* with regards to the homogeneous temporal properties is also made explicit in an equivalent (in the sense relevant to my argument here)[37] passage from 'Introduction to Metaphysics'. Bergson here considers the relation between distinct terms in succession, understood as "abstract time," and *durée*.[38] As with the ideas concerning 'homogeneous time' in *Time and Free Will*, one part of this discussion involves underscoring that one might think or suppose that "abstract time" provides an exhaustive description of temporal experience (CM 211-2). The other aspect, also relevantly similar to the aforementioned passage from *Time and Free Will*, involves considering the experience of distinct terms as they figure in change perception. A set of discrete successive terms might be taken to unfold in time, or 'flow' by themselves. But "were I to examine it closely", Bergson suggests,

[36] The notion of 'homogeneous time' is explored in Riquier's (2009: 284-8) and Sinclair's (2019a: 53-7) recent treatments of Bergson.

[37] See fn. 33 for a key difference between Bergson's views in *Time and Free Will* and 'Introduction to Metaphysics'.

[38] Bergson explicitly identifies 'abstract time' with the notion of 'homogeneous time' (CM 212).

> I should see that this abstract time is as immobile for me as the state I localize it in, that is could flow only by a continual change of quality and that, if it is without quality, a simple theatre of change, it thus becomes an immobile milieu. (CM 212)

Notice that it is supposed here that we would want to consider "abstract time," or homogeneous temporal properties, as 'flowing,' or unfolding in order to appreciate Bergson's insight. This would mean, arguably, that we are in the remit of the Process View of temporal experience.[39] And the idea is that homogeneous temporal properties, unfold in time only in virtue of *durée*, or a "continual change of quality". The suggestion, to be expanded upon further below, is that *durée* is fundamental in the sense that it accounts for the successive order inherent in homogeneous temporal properties, which we are here considering in the context of non-inferential temporal experience.

This proposal is not at all obvious, or uncontroversial. Contemporary accounts which contend that experiences of succession are themselves successive do not refer to anything like *durée* in support of the idea. In the fourth section of this chapter, I will take a fresh look at the previous chapter's argument with regards to recent variants of the Process View, and argue that we should consider Bergson's view as a potential alternative. Before that, I will show that we should in fact take Bergson's proposal with regards to temporal experience as a version of the Process View (in the next section), and then proceed to discuss experiential observations offered by Bergson in support of *durée* being a fundamental aspect of the ontology of temporal experience (in the third section).

[39] In the next section, I will argue that we should in fact consider Bergson's account as a version of the Process View of change perception.

## **II** Bergson and the Process View

According to the Process View, temporal experience itself unfolds in time. Describing the perception of a gymnast performing a flip routine in the scope of the specious present, the Process theorist would have it that we do not only experience the phases of the move as successive; the experience (of the phases) itself extends through time. Experience, at least when we are focusing on non-inferential experience of temporal properties, has the same structure as its content. The Retentional theorist, by contrast, contends that our perception of change and movement does not itself have a (significant) temporal profile. Temporal properties are, on this view, contents of instantaneous, or quasi-instantaneous experiential states. The temporal stages of a flip routine are contents of what James called a 'perspective projection' (1890a: 630), or a 'perpendicular' (1890a: 629) raised upon the 'horizontal' time-stream.

In this section, I will argue that it is plausible to understand Bergson as a Process theorist. I'll do this by (i) showing that Bergson subscribes to the two theses marking out both the Processual account and the Retentional View from the historically influential Cinematic model; and (ii) examining a passage which supports a Processual reading of Bergson, a passage which harmonizes with additional ideas from Bergson's work suggesting a Processual interpretation. First, however, I will turn to consider Dainton's recent treatment of Bergson's view, and his arguments in favour of attributing the Processual model to Bergson.

### *Dainton on Bergson's View of Temporal Experience*

In 'Bergson on Temporal Experience and *Durée Réelle,'* Dainton (2017b) explores Bergson's relation to the Process View (the Extensional View, in his terminology), in the context of an insightful survey of

Bergson's reflections on the experience of time.[40] Now, the way the debate is mapped out in contemporary scholarship is fairly recent (in many respects owing to Dainton's own work, from 2000's *Stream of Consciousness* onwards), and thus the precise distinctions and terminology were not available to Bergson himself. Moreover, Bergson does not engage directly, in published work, with other accounts of temporal experience.[41] Thus, the task of determining Bergson's relation to the framework presented in the previous chapter is at least not straightforward. That is not at all to say that Bergson was isolated from the emerging debates about temporal experience taking place when was making his own contributions, the decades bracketing the turn of the 20th century. He was thoroughly familiar with William James' work, as well as with the work of additional French, Anglophone, and German thinkers who took part in the growth of scholarship on the topic of time and temporal experience which characterized the period. And at least from the first decade of the 20th century, Bergson's own output on temporality was widely read and had substantial influence upon the work of other theorists.[42]

Dainton's suggestion in the paper is that we should consider Bergson's account as a version of the Process View. If this interpretation is correct, moreover, Bergson has a good claim to being the first, or at least among the first, to develop the position (2017b: 102-3). Putting aside for present purposes a discussion of the sources and originality of Bergson's account,[43] how can we support the claim which takes Bergson to hold the Process View of temporal experience?

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[40] Even though Bergson's work is sometimes briefly alluded to in the literature on temporal experience, Dainton is the first to explore Bergson's relation to the contemporary debate in significant detail.

[41] Though he does refer on a number of occasions to the relation between his view and James' account (see, e.g., EP 291-3, 384-8, 479-82).

[42] For an account of Bergson's influence during the early decades of the 20th century, see Soulez and Worms (2002: Ch 5-6), and Sinclair (2019a: 14-26). James' chapter on Bergson from *A Pluralistic Universe* (1909: Ch 6) was particularly instrumental in cementing Bergson's impact in the Anglophone world, and also shows the significant influence Bergson's thought had upon James's own output in the first decade of the 20th century.

[43] Dainton locates a clear instance of the Process View in William Stern's 'Psychische Präsenzzeit' (1897), noting that a good account of the Process View's origins should take into consideration earlier thinkers who influenced both Stern (in Germany),

Bergson's description of *durée* a qualitatively manifest continuous progression seems to make such a reading at least initially attractive. It enables, first of all, to contrast Bergson's view with the historically influential Cinematic Model, on which our perception of change is "decomposable into a series of static motionless snapshots" (2017b: 95-6).[44] But what about the Retentional Model which, like the Process View, recognizes the presence of change and motion in immediate experience? At first blush, at least, Bergson's proposal regarding *durée* as that which is "unceasingly being done" (TFW 119), as continuous progression, does not seem to align comfortably with the view that takes temporal experience to be 'enclosed' in instantaneous, or quasi-instantaneous states. On closer inspection, however, there might be reasons to be more careful. Dainton outlines two. The first is that Bergson does not seem to explicitly contrast his view with the Retentional alternative (2017b: 98). The problem would then be, it seems, that we cannot rule out taking *durée* to be 'confined' within states which themselves lack temporal extension. *Durée*, on such a view, could be understood as content of experiences which themselves do not 'flow' or unfold in time. A further, related, difficulty is that in *Time and Free Will* Bergson understands *durée* as involving "mental synthesis" (TFW 111-2, 120, 124). This could possibly indicate that Bergson understands *durée* as the upshot of a mental act, as content which is itself independent of the unfolding of

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and Bergson (in France; though Bergson also had significant interest in the work of Anglophone and German thinkers). In this respect, Dainton (2017b: 103) mentions Lovejoy (1912a, 1912b, 1912c), who situates Bergson's ideas on time in an intellectual lineage which comprises Ravaisson, Renouvier, and Pillon, among others. Sinclair (2018, 2019b: Ch 5) has recently expanded upon suggestions from Lovejoy's (1913) work, shedding new light on the way Ravaisson's and Lemoine's reflections on habit shaped aspects of Bergson's thought.

The topic of the sources of Bergson's account merits extensive independent discussion. My own view is that, while Bergon's ideas on time and temporal perception certainly did not emerge 'out of the blue,' there a sense in which, when considered in terms of their overall structure and aims, we can see them as exhibiting at the very least a modest degree of originality. Lemoine, for example, presents a view of habit which incorporates a 'fusion' between past, present, and future (Sinclair 2019b: 173), and Bergson's reflections on the relation between space and number can be helpfully seen as anticipated by remarks in Ravaisson's *Of Habit* (Sinclair 2019b: 165; see also fn. 10 above). I do not find, however, in these thinkers a view of temporality or temporal experience which is equivalent to Bergson's in terms of its context, aims, detail, and structure.

[44] See my discussion below for the way Bergson explicitly takes up the theses I identified in the second chapter as setting apart both the Process View and the Retentional Model from the Cinematic Model.

experience. As Dainton notes, however, it would be a mistake to find such a suggestion in Bergson's notion of "mental synthesis". A plausible reading of the idea of 'synthesis' here would be to understand it as a 'stretching-out' of temporal experience due to *durée*, rather than as the activity of collecting temporal phases into content which is experienced instantaneously (see François 2008b: 14-5; Riquier 2009: 292-3; and Sinclair 2019a: 50-2, for recent readings of Bergson's 'mental synthesis' along these lines). So it seems that the second difficulty can be avoided once we're sufficiently attentive to the way Bergson articulates his position.[45] But a Retentional interpretation of Bergson has not been ruled out.

As for positive considerations in favour of attributing the Process View to Bergson, Dainton draws the main pillar of support from an idea that Bergson develops in *Matter and Memory* and his later work. This is the suggestion that there are different scales of *durée* which "unfold together in the objective time system that physical events occur within" (2017b: 99). The idea emerges with regards to Bergson's (interesting and controversial) discussion of the nature of movement in the physical world. One second of an experience of red light, for example, corresponds to 400 billion electromagnetic oscillations (MM 205). A natural thought would be that these oscillations can be understood quantitatively. What Bergson suggests, however, is that there is in matter, in the form of 'vibrations,' or oscillations, a qualitative aspect of change (MM 200-1, see also IT 26). The idea connects two lines of thought Bergson pursues from *Matter and Memory* onwards: an attempt overcome mind-body dualism in favour of a difference of degree between matter and consciousness (e.g., MM Ch 4), and an argument to the effect that every movement implies consciousness to *some* extent, at least insofar as movement involves a continuation of the past into the present (DS Ch 3). What we get out of these two reflections is a conception in which there is a continuity between matter and consciousness, a 'panpsychist' position according to which *durée* is pervasive, even

[45] The fact that Bergson does not employ the idea of 'mental synthesis' in his later work is also relevant.

in the physical world, even if the kind of consciousness we find in matter is more 'relaxed' and less 'dense' than that of living beings. Given this kind of view, Dainton argues, "it is difficult to see how Bergson could be working within anything other than the Extensional [i.e., Process View] framework" (2017b: 99). This is because "Retentional theorists hold that all directly experienced changes and successions occur within conscious episodes which do *not* extend through time" (2017b: 99).

Now, Bergson's version of panpsychism certainly seems to be capable of accommodating the Process View, perhaps also lending it indirect support by finding an objective correlate for the experience of *durée* in the nature of matter (if the argument is successful). But it does not seem to be incompatible, as such, with a Retentional View of temporal experience. Temporal experience can be understood as 'packed' into quasi-instantaneous states, with its underlying conditions having temporal extension. That is, it is not clear that the 'consciousness' which exists in matter directly implies a thesis regarding the structure of our experience of change which would support a Processual rather than a Retentional reading.[46]

Dainton finds further, indirect, support for a Process View interpretation in Bergson's rejection of a 'presentist' metaphysical position, on which only a momentary present strictly exists. This idea can be found in Bergson's argument for the reality of the past in the third chapter of *Matter and Memory* (e.g., MM 142), and in the idea that the temporal extension of immediate change perception is variable (CM 178-9). Since adherents of the Process View take it that the experience of change is not confined to momentary states, the position does not seem to easily fit with presentism.[47]

[46] It is interesting to note, in this respect, that Bergson qualifies his suggestion concerning the relation between temporal experience and matter as speculative and exploratory, in contrast with a higher degree of certainty he attaches to the reflections on the nature of temporal experience (DS 44-6).

[47] Though see Dainton (2016: 96ff.) for a reconciliatory approach: 'Extensional Presentism'.

These considerations indicate that Bergson could have well held the Process View, which seems to be an appealing interpretation in light of Bergson's characterization of *durée* as occurrent, as "something that is unceasingly being done" (TFW 119). But the Retentional interpretation does not seem to have been sturdily rejected. In the next sub-section, I will try to present a picture on which there is a firmer attachment between Bergson's thought on change perception and the Processual model. I will proceed by first examining the way Bergson's ideas conform explicitly to the theses setting apart both the Process View and Retentional View from the Cinematic Model, and then discuss a passage in which Bergson distinguishes his account from the Retentional View.[48]

*Bergson and the Process View*

In the second chapter, I mentioned two related ideas – the Perception of Change Thesis, and the Unity of the Interval Thesis – which form a common ground between the Retentional and Processual approaches, and distinguish both models from the Cinematic View. According to the first thesis, change is manifest in non-inferential perceptual experience. This marks a contrast with the Cinematic View, on which immediate awareness lacks any temporal content. In a passage from *Matter and Memory*, Bergson explicitly rejects the idea of an instantaneous present as applying to experience:

> Nothing is less than the present moment, if you understand by that the indivisible limit which divides the past from the future. When we think of this present as going to be, it exists not yet, and when we think of it as existing, it is already past. If, on the other hand what you are

[48] I will return to the idea which provides (what I take to be) the key motivation for the Process View, the Experiential Process Thesis (discussed in the previous chapter), in the fourth section of the present chapter.

> considering is the concrete present such as it is actually lived by consciousness, we may say that this present consists, in large measure, in the immediate past. (MM 150; see also CM 178-9)

The present, for Bergson, is not a 'knife-edge' or a 'glow-worm spark'. We cannot successfully apply the idea of a strictly instantaneous present to our concrete experience, which is in large part structured by the "immediate past". The idea here works with Bergson's discussion of the 'indivisibility' of the changes and movements we perceive within the scope of the present. In the example of the shooting start noted above, for example, we have an "indivisible sensation of motion or mobility" (TFW 112-12; see also MM 188; CM 168-9, 173).

As I noted above, Bergson's account of non-inferential temporal experience comprises more than the progressive continuity of *durée*, encompassing also what I called the 'homogeneous temporal properties' of discrete succession, simultaneity and intervals. As Bergson argues in the second of his 1911 Oxford lectures, published as 'The Perception of Change': "our consciousness tells us that when we speak of our present we are thinking of a certain interval of duration" (CM 178). In the perception of a shooting star, or of a movement of the hand, for example, we perceive a succession of temporal stages as part of a unified movement. We then have in place the Unity of the Interval Thesis, which together with the Perception of Change Thesis distinguishes the Process View and Retentional Model from the Cinematic View.

Earlier in this section I noted a concern with regards to Bergson's approach. It was that the continuity, or 'ceaseless flow' of *durée* could perhaps be understood on the level of content, independent of the temporal structure of experience. That is, we might want to understand *durée* as the manifest aspect of an instantaneous or quasi-instantaneous experiential state. Now, Bergson does not explicitly discuss the Retentional View as a position attributable to a particular thinker or a school of thought. But he does criticize the approach, in the sense that he contrasts his view with a position on which temporal properties

are contents of instantaneous experiences. Following the presentation of the idea of *durée* in *Time and Free Will*, Bergson notes a contrast with an account on which

> [w]e set our states of consciousness side by side in such a way as to perceive them simultaneously, no longer in one another, but alongside one another … Note that the mental image thus shaped implies the perception no longer successive, but simultaneous, of a *before* and *after*, and that it would be a contradiction to suppose a succession which was only a succession, and which nevertheless was contained in one and the same instant. (TFW 101)

We can here find, I believe, an explicit rejection of the Retentional View. Despite what Bergson implies in the passage, the account according to which successive terms are simultaneously presented in experience might be logically coherent (and thus not contradictory, as suggested). Bergson's critical note, however, brings out the relevant contrast between the Processual and Retentional approaches. Unlike a position on which successive terms are understood as contents of instantaneous states, on Bergson's view the experience of temporal properties is itself *successive*.

Bergson's understanding of *durée* as 'mental synthesis' (mentioned above), which he abandoned following *Time and Free Will,* might seem to hint at a Retentional interpretation. Other aspects of Bergson's account seem to be neutral with regards to the Processual-Retentional distinction: the Retentional view can accommodate seamless continuity (on the level of content), the idea of 'heterogeneity' or qualitative variability, and the relation of *durée* to primary (non-recollective) memory (which I shall discuss in the fourth chapter) just as well as the Process account.

A Processual understanding of Bergson's account, however, seems to be a natural interpretation of temporal experience as involving 'ceaseless flow,' a continuous qualitative progression. The interpretation is supported by the passage just noted, and it fits well with the reading of Bergson's

discussion of 'abstract time' and 'homogeneous time' I offered in the preceding section of this chapter (according to which successive phases are successively experienced). Another consideration in favour of the Processual interpretation is that it is *fruitful,* or productive, to understand Bergson this way.[49] Bergson's dual-aspect ontology of temporal experience, I will argue (in the fourth section of this chapter), can provide a potentially successful construal of an idea central to the Process View – the Experiential Process Thesis - in contrast with other versions of the Processual model. While the Retentional reading is perhaps not ruled out entirely, we can confidently associate Bergson with the Process View of change perception.

## **III** *Durée*: A 'Pure Introspection' Approach

How can we provide support for Bergson's view concerning the central place of *durée* in conscious experience? More specifically, how might one argue for *durée* being a fundamental aspect of the ontology of (non-inferential) temporal experience? The present section and the next develop answers to this question, in view of providing a cogent account in conversation with recent work on temporal experience.

In the present section I expand upon a 'pure introspection' approach to *durée*, presented by Bergson in various contexts. It is based upon an effort to introspectively capture *durée*, to 'isolate' *durée* in its 'original purity,' while attending to our experience. This kind of effort forms at least a central part of what Bergson signifies by the term 'intuition,' first presented in published form in 1903's 'Introduction to Metaphysics'. This approach, I will suggest, is arguably successful in giving us experiential grip on the notion of *durée*,

[49] A consideration of relevance given that there are no compelling reasons in favour of a Retentional interpretation.

but it does not allow defending a general thesis regarding change perception in line with Bergson's view as presented above.

### *The 'Pure Introspection' Approach: Practice and Reflection*

As I've shown in the second section of this chapter, *durée* denotes the aspect of experience which involves continuous temporal transition. It is not a transition of discrete phases or states, and does not only involve the kind of continuity we find between gaplessly arranged objects or parts, but is rather a continuity of progress, a qualitatively manifest "succession without distinction". As central as this idea is in Bergson's thought, and in his account of temporal experience in particular, Bergson stresses that grasping the notion of *durée* and its significance involves formidable challenges. "We find it extraordinarily difficult," Bergson notes, "to think duration in its original purity" (TFW 106). Why is this so?

In *Time and Free Will*, Bergson underscores two reasons in tandem, when noting a contrast between the term 'distinction' as applied to *durée*, on the one hand, and to a quantitative or 'homogeneous multiplicity,' on the other: "[w]e are so accustomed to illustrate one of these two meanings of the same word [i.e., "distinguish"] by the other, and even to perceive the one in the other, that we find it extraordinarily difficult to distinguish between them or at least to express the distinction in words" (TFW 122). The main source of the difficulty outlined here relates to the way we use language, a claim Bergson also makes in additional passages of the book. "Language," he notes, "requires us to establish between our ideas the same sharp and precise distinctions, the same discontinuity, as between material objects" (TFW xix; see also TFW 139). In *Time and Free Will* Bergson hesitatingly ascribes the difficulty to perceptual experience ("to perceive one in the other"), but it is this latter aspect which assumes primary significance in Bergson's later work when he accounts for the difficulty of grasping *durée*. Quantifiable, or

homogeneous aspects of perceptual experience, and temporal experience in particular, are founded on practical necessity, or the "exigencies of practical life" (MM 209-10; see also MM 183-4). And due to the importance of the separation between distinct, yet identical, terms within action they assume a central role. "Mental functions," Bergson notes, "are essentially turned toward action" (MM 16),[50] and this also holds in relation to temporal experience: "[t]he duration in which see ourselves acting, and in which it is useful that we should see ourselves, is a duration whose elements are dissociated and juxtaposed" (MM 186). The structure of language, in Bergson's later work, is understood only as a secondary source of difficulty with regards to apprehending *durée* (IT 75-140; see IT 110 in particular).

In light of the predominance of discrete contents in perception,[51] one approach to the idea of *durée* and its place in temporal experience outlined by Bergson involves a strenuous effort of isolating 'pure *durée*' by means of reflection on the features of temporal experience. We reach *durée*, on this proposal, by "deep introspection, which leads us to grasp our inner states as living things, constantly *becoming*, as states not amenable to measure, which permeate one another" (TFW 231). In the opening of the second part of 'The Perception of Change,' Bergson asks the listener to "make a strenuous effort to put aside some of the artificial schema we interpose unknowingly between reality and us. What is required is that we should break with certain habits of thinking and perceiving that have become natural to us. We must return to the direct perception of change and mobility" (CM 167).

This methodological proposal, involving arduous reflection on experience with the aim of 'isolating' *durée*, forms the core of what Bergson means by 'intuition,' a concept he develops as part of a general metaphysical position from 1903's 'Introduction to Metaphysics' onwards. Bergson associates the idea

[50] This quote appears in the introduction to the work, written in 1910 for the English translation.

[51] This also holds for conceptual thought. As Bergson notes in the 1902-3 College de France course 'The History of the Concept of Time,' "even in its most elevated form the concept expresses something which is of the domain of action" (HIT 73; see also CM 209).

with the capacity to attain 'absolute' in contrast with 'relative' knowledge.[52] In its general sense, intuition coincides for Bergson with a direct apprehension which involves a kind of 'immersion' in the object of experience: "Intuition, then, signifies first of all consciousness, a vision which is scarcely distinguishable from the object seen, a knowledge which is contact and even coincidence" (CM 36). But in the present context the idea is of relevance insofar as *durée* is designated by Bergson as its primary object: "the intuition we refer to … bears above all upon internal duration. It grasps a succession which is not juxtaposition … the uninterrupted prolongation of the past into a present which is already blending into the future" (CM 35; see also CM 217).

Bergson's proposal does not remain at the level of a general or abstract suggestion to the reader. In *Time and Free Will,* he presents a number of examples (some of which have been noted above), instances of the attempt to 'isolate' *durée* by introspection. Let us proceed, then, to examine them.

We can first underline what we are seeking to attain with such an account: **(i)** experiential support for the idea of *durée* as an aspect of change perception; **(ii)** a notion of *durée* which we can generalize across the range of temporal experience, non-inferential temporal experience in particular; and **(iii)** an idea of the fundamental role of *durée* in temporal experience, in relation to the homogeneous temporal properties of succession, intervals, and simultaneity. I'll examine (i) with regards to two central cases Bergson presents in *Time and Free Will*,[53] and then independently assess whether (ii) and/or (iii) were attained.

[52] Intuition generally, for Bergson, is the "sympathy by which one is transported into the interior of an object in order to coincide with what there is unique and consequently inexpressible in it" (CM 190). The knowledge which it attains is absolute. It is contrasted with 'analysis' which is a mode of knowledge 'exterior' to its objects, relies on symbols, and is relative to an adopted or chosen system of classification (CM 187-91).

[53] I mention three additional cases from *Time and Free Will* which are meant to exemplify *durée* in fn. 61.

*Melody and Durée*

As we've seen in the first section of this chapter, Bergson examines the experience of a melody when first presenting the concept of *durée*, or 'pure *durée*' in *Time and Free Will*. In this context, we can look at the passage in full. The idea of a *durée* as a "succession without distinction" is made experientially manifest when

> we recall the notes of a tune, melting, so to speak, into one another. Might it not be said that, even if these notes succeed one another, yet we perceive them in one another, and that their totality may be compared to a living being whose parts, although distinct, permeate one another just because they are so closely connected? The proof is that, if we interrupt the rhythm by dwelling longer than is right on one note of a tune, it is not its exaggerated length, as length, which will warn us of our mistake, but the qualitative change thereby caused in the whole of the musical phrase. (TFW 100-1)[54]

The melody example assumes a wide significance for Bergson, as he frequently associates *durée* with the continuity of a melody, e.g., when *durée* is understood as the "continuous melody of inner life" (CM 176; see also CM 19, 83; TFW 111; DS 44). The confidence with which Bergson frequently relates his discussion of *durée* to the musical case rests upon the fact that it is, to a significant extent at least, compelling. As I noted above, the musical case brings into view a kind of continuity which seems to be distinct from that of "a continuous line or chain, the parts of which touch without penetrating one another" (TFW 101). It is difficult, perhaps, to think of a better example of the continuous progression in temporal experience.[55]

[54] In virtue of Bergson's use of the word "recall," the point Bergson is making could seem to apply to recollective or episodic memory, but it is clear that the example is (at least, also) meant to apply to the immediate experience of melody or musical phrase when, e.g., he considers the example later as simply "listening" to a melody (CM 174, DS 44).

[55] See Alperson (1980) for insightful discussion of music as an 'art of time,' informed by a variety of philosophical perspectives which also include Bergson's work.

We are, then, provided with persuasive experiential support for the idea of *durée*. Bergson's 'proof,' however, does not seem particularly essential for the point he wishes to make. One can explain the fact that we notice a change in rhythm when dwelling on a particular note without recourse to the idea of *durée*, for example by explaining it in virtue of a sub-personal process attributed to memory. The 'proof' seems to suppose the experiential appeal of the example, which is in this case rather convincing.

One may wonder, however, whether we acquire a notion of "pure *durée*" (TFW 100), or of "*durée* in its original purity" (TFW 106) through this example. The difficulty associated with this proposal can be underscored in relation to Bergson's subsequent discussion of the musical case. In *Duration and Simultaneity*, Bergson presents the example anew, highlighting the difficulty involved:

> A melody to which we listen with our eyes closed, heeding it alone, comes close to coinciding with this time which is the very fluidity of our inner life; but it still has too many qualities, too much definition, and we must first efface the differences among the sounds, then do away with the distinctive features of the sound itself, retaining of it only the continuation of what precedes into what follows and the uninterrupted transition … in order finally to rediscover basic time. (DS 44)

We are here called upon to make a certain effort of 'effacing' the "distinctive features" of the sounds in order to grasp *durée*, or 'basic time'. But what is left of the experience if we disregard the "differences among the sounds," and do away with their "distinctive features"? It could seem that we are here attempting to consider an experience without any phenomenal characteristics. This worry is expressed by Ushenko, who comments on the example of the melody from *Duration and Simultaneity*:

> This passage shows very clearly the tendency to strip *durée* of all qualitative differences which allow for the possibility of transition … The sameness of continuous duration erases from its own face all characteristic features: the multiplicity and variety of phenomena vanish. (1929: 119)

As Čapek (1971: 119) argues with regards to this comment, it is possible, and more plausible, to read Bergson as suggesting that what we want to put aside is not the qualitative aspect of the experience, its phenomenal character as such, but rather the clear-cut distinctions between states. Ushenko would then be wrong to think that Bergson wants to do away with any qualitative differences. Although the way Bergson phrases this might mislead, the 'definition' and the 'distinctive features' Bergson thinks we can exclude from the experience are those of separate, discrete states.

The fact that this is in fact Bergson's aim, as well as the difficulty inherent in such a proposal, come up when he discusses the example of music in 'The Perception of Change'. When we listen to a piece of music, Bergson concedes, "we have, no doubt, a tendency to divide it and to picture, instead of the uninterrupted continuity of a melody, a juxtaposition of distinct notes" (CM 174). The contention is that we regularly experience melodies as composed of separate notes. Bergson further explains this as due to an exercise of a mimetic capacity, the ability to simulate the movements necessary to produce the sounds: "we're thinking of the discontinuous series of efforts we should be making to recompose approximately the sound heard if we were doing the singing" (CM 174). Regardless of whether this (interesting) explanation is successful, the challenge Bergson outlines is not of attaining an experience without any qualitative features, but of grasping a "succession without separation" isolated in its 'original purity'. And it is questionable whether we can achieve this, as underlined by Bergson's discussion of the difficulty.[56]

[56] Though Bergson thinks that this obstacle can be removed (CM 174).

*Strokes and Oscillations*

Bergson brings up the examples of experiencing the strokes of a clock, and the oscillations of a pendulum in *Time and Free Will* in order to show that in these cases we can isolate 'pure *durée*'. When we perceive the oscillations of a pendulum, Bergson suggests, we enjoy an experience lacking quantitative features:

> I shall thus get the image of pure duration; but I shall have entirely got rid of the idea of a homogeneous medium or a measurable quantity. By carefully examining our consciousness we shall recognize that it proceeds in this way whenever it refrains from representing duration symbolically. When the regular oscillations of the pendulum [balancier] make us sleepy, is it the last sound heard, the last movement perceived, which produces this effect ? No, undoubtedly not, for why then should not the first have done the same ? Is it the recollection of the preceding sounds or movements, set in juxtaposition to the last one ? But this same recollection, if it is later on set in juxtaposition to a single sound or movement, will remain without effect. Hence we must admit that the sounds combined with one another and acted, not by their quantity as quantity, but by the quality which their quantity exhibited, i.e. by the rhythmic organization of the whole. (TFW 105-6)

Bergson makes an analogical point when taking account of different ways we can experience the strokes of a clock:

> Whilst I am writing these lines, the hour strikes on a neighbouring clock, but my inattentive [distraite] ear does not perceive it until several strokes have made themselves heard. Hence I have not counted them; and yet I only have to turn my attention backwards [un effort d'attention retrospective] to count up the four strokes which have already sounded and add them to those which I hear. If, then, I question myself carefully on what has just taken place, I perceive that the first four sounds had struck my ear and even affected my consciousness, but

> that the sensations produced by each one of them, instead of being set side by side, had melted into one another in such a way as to give the whole a peculiar quality, to make a kind of musical phrase out of it … it is thus that duration is presented to immediate consciousness. (TFW 127-8)

The idea of there being a qualitative aspect of change perception, in both cases, is attractive.[57] But there are two points which can be made. First, *isolating* that aspect entirely from the homogeneous temporal properties seems to be particularly challenging. Second, it does not seem evident that the qualitative aspect of temporal experience is to be straightforwardly identified with Bergson's *durée,* in particular in the case of experiencing spatial movement. While the clock example clearly singles out auditory perception, the pendulum case seems to be ambiguous between hearing and visual perception of the movement. And we can find Bergson himself remarking that it is particularly difficult to attend to *durée* in the case of motion: "Movement perceived by our senses," he writes, "is the, so to speak, palpable sign of a homogeneous and measurable duration" (TFW 107). The dominance of homogeneous temporal properties in our experience of movement, e.g., in the case of visually perceiving a pendulum's movement, can be seen in light of Bergson's discussion of the practical basis of quantitative determinations of experience discussed in the opening of this section. It is easy, I think, to agree with the claim that comes up from this discussion, that it is not obvious we can easily grasp *durée* in the case of motion perception.

[57] With regards to the second example in particular, it is not absolutely clear that Bergson is making a point which concerns non-inferential experience. But we can perhaps suppose that he is, or that his claim is at least in part a suggestion about non-inferential experience, since other examples he provides clearly designate immediate experience (consider, in this respect, the example of the musical phrase, or the shooting star, mentioned above).

As with Bergson's 'proof' in the case of the melody, the analogous point concerning the pendulum's oscillations here does not seem to be decisive. The feeling induced by the oscillations could be explained by a sub-personal process which need not be described in terms of *durée.* The 'proof' here, as with the melody case, can be seen as resting upon the phenomenological cogency of the example.

The case of the clock's strokes, involving an appeal to the way the temporal features are manifest inattentively, is perhaps more convincing. While it might rare that we are able to appreciate this kind of experience, the idea of access to a qualitative progression in this kind of example is arguably compelling. There is no significant advance with Bergson's idea that we can here single out *durée* entirely, though. It seems reasonable to think that we cannot isolate experience entirely from 'homogeneous' determinations. 'Pure *durée*' is a limit we do not fully attain.[58]

## *Assessing the 'Pure Introspection' Approach*

We can now turn to assess the way cases discussed by Bergson, in line with the methodological proposal concerning the isolation of 'pure *durée*' through introspection, allow us to attain (i) support via experience

[58] In *Time and Free Will*, Bergson highlights three additional cases which are meant to exemplify the place of *durée* in experience – (i) dream states (TFW 126), (ii) 'deep-seated passions' (TFW 132-3) and (iii) feels or 'simple sensations' (TFW 130-2). I take his suggestions with regards to these cases to be unsuccessful (dream states) or not of direct relevance to my present focus ('simple sensations,' 'deep-seated passions').

The suggestion that *durée* is more evident in dream states than other states of consciousness might be *prima facie* appealing, due to the close connection between practice and 'homogeneous multiplicity' (a connection I discussed in the beginning of this section) . We might think that in dreaming we are as distant from practice as we can be, and *durée* might then be manifest in a vivid way (TFW 126). But the suggestion is not persuasive. It does not seem that dream states straightforwardly involve the continuous progression characteristic of instances of motion or change. Bergson's later treatment of dreams states, in *Matter and Memory* and the 'Dreams' essay from *Mind-Energy* seems to recognize this. In both contexts, Bergson locates a connection between dreaming and an exercise of memory which is unconstrained by practical necessity, but this does not involve any distinct insight into *durée* (MM 106, 154-4; ME 104-33). For instructive recent treatment of dream states and temporality, see Crowther and Soteriou (2017).

Bergson contends that in the case of 'deep-seated passions' [les phénomènes de sentiment] such as love, desire, or melancholia, "the feeling itself is a being which lives and develops … it lives because the duration in which it develops is a duration whose moments permeate one another" (TFW 133; see also TFW 8-9). The idea is compelling, I think, but it is not evident that 'deep-seated passions' are intimately related to other aspects of non-inferential temporal experience I am focusing on at present. Detailed engagement with the point coming up here would take us too far afield, in any case.

The suggestion with regards to feels or 'simple sensations' – such as tastes or scents - is that we designate with the same words qualities which are in fact very different (TFW 120-3). The taste of a strawberry I had today, for example, might be very different than the taste of a strawberry I had yesterday, or a year ago, even though I might categorize these instances in the same way. This insight, at least as it is presented in the relevant section from *Time and Free Will*, seems to hold entirely apart from ideas concerning the nature of non-inferential change perception.

for *durée* as an aspect of non-inferential temporal experience; (ii) an idea of *durée* which we can generalize across the range of temporal experience, non-inferential temporal experience in particular; and (iii) an idea of the fundamental role of *durée* in temporal experience, in relation to the homogeneous temporal properties of succession, intervals, and simultaneity.

The cases of hearing music, or melodies, and the relevantly analogical cases of inattentively perceiving the strokes of a clock or the sounds of a pendulum, are arguably successful in bringing into view a qualitative progression in immediate temporal experience. The auditory case seems to be a particularly fertile source for examining the idea of *durée*.[59] As Bergson emphasizes with regards to the melody case, however, it seems difficult to attain *durée* in its 'original purity,' and it is not clear from the discussion that this difficulty has been surmounted. Thus (i) – experiential support for *durée* as an aspect of temporal experience - was achieved, with a concession concerning 'purity'. As for (ii) - the generalizability of the idea across temporal experience - the point has not been conclusively established. In particular, we have seen Bergson noting that the predominance of discrete features in our perception of spatial motion 'muffles' our ability to appreciate *durée*, let alone consider it in isolation. It has not been made clear how the cases in which *durée* is more evidently manifest generalize to cover the wide range of temporal experience.

We have not, thus far, discussed the way in which the 'pure introspection' approach allows us to appreciate (iii) the fundamental role of *durée* with regards to the homogeneous temporal properties. The attempt to understand this role would involve, on the methodological proposal under discussion, considering it from the standpoint of an attempt to isolate *durée* in its purity. There is, however, a basic difficulty with this

[59] See, in relation to this point, Prichard's (1950) suggestion that hearing a sound as having duration cannot be resolved into anything else; it is primitive, or "ultimate" (1950: 48). Prichard's 'duration', however, is not Bergson's *durée*. The point is that we non-inferentially experience a temporal interval.

proposal, underlined by Bergson himself in *Time and Free Will*. Attaining an idea of the basic role of *durée* in relation to the homogeneous temporal properties seems to involve taking the latter to be fully explained by *durée* itself, and precisely this kind of approach is singled out as an object of critique. "The English School" - and by this Bergson has in mind thinkers from Berkeley to J.S Mill - he writes, "tried to reduce relations of extensity to more or less complex relations of succession in time" (TFW 99).[60] Extensity here means spatial relations. But the discussion in this section applies widely to quantitative distinctions in experience,[61] which include what I called the 'homogeneous temporal properties' of succession, intervals, and simultaneity. Bergson's argument (TFW 99-104) against the 'English School' involves outlining the difference between (i) elements comprising discrete parts or phases, and (ii) the qualitative variability in temporal perception.[62] Bergson considers an example of running a finger along a surface:

> [W]hen the movement of my finger along a surface or a line provides me with a series of sensations of different qualities, one of two things happens : either I picture these sensations to myself as in duration only … or else I make out an order of succession, but in that case I display the faculty not only of perceiving a succession of elements, but also of setting them out in line after having distinguished them: in a word, I already possess the idea of space. (TFW 102)

In order for us to be able to distinguish sensations as successive points along the surface of an object we must have in place, Bergson suggests, a distinction between terms which is different from the qualitative

[60] See, for example Berkeley (2008: 99), Mill (1865: 7-8). Berkeley's view, however, is more complicated on this matter since he does not seem to reduce two dimensional relations to temporal order (2008: 61-2). On this point, see Evans' 'Molyneux's Question' (1985: 371-5).

[61] As noted above (in section 1 of the present chapter), Bergson argues that an 'intuition' of space is necessary for the idea of number as a 'homogeneous multiplicity'. We do need to accept Bergson's argument about the relation between 'homogeneous multiplicity' and space in order to appreciate the point I am considering here.

[62] There is nothing like Bergson's *durée* in the works of thinkers associated with the 'English School,' and thus the argument does not straightforwardly apply to their work. The more general point Bergson makes, however, with regards to the reduction of spatial relations to temporal relations, is arguably relevant. See Evans (1985: Ch 13) for a more recent critique of the reduction of spatial to temporal determinations in a tradition which includes Berkeley, Mill, and others.

progression of *durée*. Recall that Bergson argues for space being the basis for quantitative distinctions, or 'homogeneous multiplicity' (as discussed in the first section of the present chapter). But we do not need to take up this argument to appreciate the point being made here. The homogeneous temporal properties - the "order of succession" - include separable moments, and this is excluded from *durée* as "succession without distinction".

Bergson's critical discussion of the 'English School' in *Time and Free Will* indicates a challenge, at least, for developing an idea concerning (iii) - the fundamental role of *durée* with regards to the homogeneous temporal properties - from the standpoint of an effort to isolate *durée* in its 'purity'. The challenge is that it does not seem like we can obtain distinctions between discrete states from the qualitative variability in temporal experience. It might be that this difficulty can be overcome, if we locate experiences in which discrete ordering does indeed arise from qualitative variability. *Durée* would then be understood as a 'rich' or 'saturated' experience, in the sense that it holds quantitative distinctions as a kind of potentiality.[63] From the standpoint of experiences of the kind discussed in this section, this does not seem like an uncomplicated task.

[63] Something like this idea is suggested by Bergson's (single) mention of *durée* as including number 'potentially' (TFW 121). Lapoujade develops this idea in *Puissances du temps* (2010: Ch 1).

## **IV** Bergson on Temporal Experience : An 'Introspective-Theoretical' Approach

I will now turn to consider a different approach to the question I began pursuing above: how can we properly understand *durée* as a fundamental aspect of the ontology of (non-inferential) temporal experience? I noted that we are seeking three things: (i) to have experiential grip on the notion; (ii) an idea of *durée* which is generalizable across the range of temporal experience; and (iii) an idea of the way *durée* is fundamental with regards to the homogeneous temporal properties of succession, intervals, and simultaneity.

In the previous section I examined fruits borne by an approach which involved isolating *durée* via an effort of introspection. The results were mixed. Although we attained (i) an idea of *durée* as applicable to temporal experience, the idea is not easily generalizable (ii), and Bergson's critique of the 'English School's' attempt to reduce quantitative distinctions to qualitative diversity indicates a stumbling block to (iii). The alternative approach I'll discuss here expands upon Bergson's claims, developing the contribution of the introspective approach in relation to considerations pertaining to the way in which the Process View of temporal experience can be satisfyingly developed. If successful, the result would be a defence of the notion of *durée* and its place in temporal experience which does not exhibit the shortcoming associated with the 'pure introspection' approach. At the same time, it would show Bergson's account as a version of the Process View capable of addressing the challenges outlined in Chapter 2, and which also brings to bear the issue of 'passage' or 'flow' on an account of the structure of temporal experience.

The core of my present proposal is that we start from an experientially robust insight which is easily generalizable, and proceed to show how developing the idea in the context of an account of temporal

experience can lead us towards an understanding of *durée* as having a basic role in the ontology of temporal experience: *durée* can be seen as allowing proper construal of the Experiential Process Thesis.

The Process View, I showed in Chapter 2, shares two related ideas with the Retentional View, distinguishing both from the Cinematic Model: (a) we immediately perceive change and motion (the Perception of Change Thesis), and (b) we perceive a succession of phases amounting to entire intervals (the Unity of the Interval Thesis). In the third section of this chapter, I argued that the two ideas can be found in Bergson's work, from 1889 onwards. I also showed that Bergson's view involves an explicit contrast with the Retentional model of temporal experience.

I did not, however, touch upon what I identified in Chapter 2 as the strongest motivation for the Processual model – the Experiential Process Thesis. This is the simple idea that we have a pre-reflective sense of our temporal experience itself unfolding in time. When I watch a gymnast perform a flip routine, I arguably have a pre-reflective sense that my experience of the gymnast landing comes after my experience of the gymnast in mid-air. It is manifest to us that our experience itself has a temporal profile. This experientially robust insight seems to be quite straightforwardly generalizable across temporal experience, from experiences of motion and change, to hearing music, and having different bodily sensations. Notice that the Experiential Process Thesis, in itself, does not entail any developed idea with regards to the explanatory or metaphysical basis of the change that is manifest; it does not directly imply, for example, Bergson's *durée*.

Does the Experiential Process Thesis appear in Bergson's work? The idea, to the best of my knowledge, comes up only as part of a line of thought which leads unproblematically to *durée*. The clearest instance of this, perhaps, is from the opening passage of *Creative Evolution*, in which Bergson makes an observation about a pervasive sense of change in our experience:

> I find, first of all, that I pass from state to state … sensations, feelings, volitions, ideas – such are the changes into which my existence is divided and which colour it in turns. I change, then, without ceasing. (CE 3)

This is probably the closest Bergson gets to articulating the idea that we have sense of experience itself unfolding through time. The insight here, it seems, is that we not only perceive temporal properties; we also notice the passage from 'state to state'. Bergson then immediately proceeds to note that "this is not saying enough. Change is far more radical than we are at first inclined to suppose" (CE 3). The subsequent discussion (CE 3-10) leads Bergson directly to the conception of *durée* as the basis for the changes we perceive. As no other Processual accounts were predominant, at the time, Bergson did not face the task of measuring his account against alternative approaches. Today the situation is rather different. The Process View (e.g., in Dainton 2006/2000, 2003, 2008a, 2014, 2016, 2017a, 2017b; Phillips 2010, 2011, 2013, 2014a, 2014b; Hoerl 2013, 2017) has become a worthy rival to the Retentional position, which had almost the status of orthodoxy throughout much of the 20th century.

In the second chapter, I argued that recent variants of the Process View do not satisfyingly accommodate the Experiential Process Thesis. I measured Process accounts developed by Dainton, Hoerl and Phillips against an idea which involves cashing out the meaning of our pre-reflective sense of temporal experience unfolding in time. What the Experiential Process Thesis implies, in the context of non-inferential change perception, is not just that we experience change and motion, and that we experience a succession of temporal stages in the context of intervals. The idea which singles out the insight afforded by the thesis is that our experience of successive stages 'builds up' in the course of intervals. Experience of succession which unfolds through an interval means, for example, that if we have an experience of the notes C-D-E-F in the context of the 'specious present,' the experience involves first C-D, then C-D-E, then C-D-E-F throughout the interval, and these phases are articulated in the context of unified, progressive change.

Lacking this construal of the progressive nature of change perception, it does not seem that we can properly distinguish the Process account from the Retentional approach.

Let us look closely at the progression of states in experience. Consider the way we progress from experiencing C-D to experiencing C-D-E, within an interval. Now, there are a number of options from the literature on the Process View to account for the way these successive experiences are related, or connected to each other. The notion of the co-consciousness relation (Dainton 2006/2000) is one. On this proposal, however, *E* and *D* are taken to be symmetrically related, and this seems to work against the progress we are trying to understand here (i.e., the progression C -> C-D -> C-D-E -> C-D-E-F). Another option would be to take the 'temporal field,' or the whole interval, as explanatorily fundamental in explaining our experience of change (Phillips 2011, Hoerl 2013). On this proposal, the progress from C-D to C-D-E, and to C-D-E-F is explained by change that is articulated in the entire phrase C-D-E-F (given that we identify the extent of the phrase with the specious present). But the example, bringing out that which is at stake in the Experiential Process Thesis, is meant to show the way change 'builds up' during the interval. It does not seem to be the case that the whole interval can do explanatory work here. It is not clear that a state which obtains throughout the interval can account for a progression of states which antecede it.

My argument here leaves open the possibility that the notions of co-consciousness or the 'temporal field' play explanatory roles with regards to aspects of temporal experience, or with regards to reflection upon temporal experience. This role, however, is not of explaining or providing the basis for the progression of states implied by the Experiential Process Thesis.

The Bergsonian proposal, by contrast, is that the progress between successive states implied by the Experiential Process Thesis (e.g. the progress C- > C-D -> C-D-E -> C-D-E-F) is accounted for in virtue of *durée,* a primitive aspect of experience which involves continuous progression. As I discussed earlier in

the chapter, it is in virtue of a property of continuous progression or transition that the homogeneous temporal properties themselves "flow" (CM 212), or are "aligned in a series" (TFW 109). *Durée* is constitutive of the temporal order between distinct terms of a succession. The problems associated with the Processual alternatives do not seem to arise here, as the relevant limitations do not pertain to Bergson's view. The idea of *durée* is identical with the idea of temporal progression (thus not temporally symmetrical), and it is not attached to the unity attributed to an interval or extent of time. In contrast with other variants of the Process View, the proposal from Bergson regarding the ontology of temporal experience seems, at least initially, to make room for the Experiential Process Thesis, expressed in terms of the idea of temporal experience 'building up,' or unfolding throughout an interval. Notice that my argument here is entirely independent of the phenomenological considerations brought up in the first and third sections of this chapter. It does not require the idea of *durée* as continuous progression being a qualitatively manifest aspect of temporal experience.

Let us trace the path we've just taken. I've started out from the theses giving shape to the Process View, (discussed in further detail in chapter 2, section 1), and argued that the Experiential Process Thesis, which is experientially robust and easily generalizable across temporal experience, is not accommodated by recent Processual theories of temporal experience (as also shown in sections 3-4 of chapter 2). I've suggested that Bergson's view, emphasizing the primitive continuous progression of *durée,* is a potential candidate for accounting for the idea which lies at the heart of the Process View, distinguishing it from the Retentional approach. Now, note also that we do not see here an attempt to 'derive' the homogeneous temporal properties from *durée*, but rather an attempt to show that *durée* is constitutive of the temporal order, of the 'alignment' of states in temporal experience. We thus have, then, (ii) a notion of *durée* which is generalizable across temporal experience, and an account which describes (iii) the fundamental role of *durée* vis-à-vis the homogeneous temporal properties.

The discussion in this section, however, has led thus far only to the idea that *durée can* account for the progression of states in temporal experience, in contrast with variants of the Process View which left us with the 'puzzle of experiential process'. The account is thus a theoretical possibility, which still makes room for additional proposals. We can get closer to understanding why Bergson might think it is the *case* that *durée* has this role, and why we might want to follow in his footsteps, by returning to the discussion in the previous section concerning the limitations of the 'pure introspection' approach.

I showed, in discussing what I called the 'pure introspection' approach, that the examples noted by Bergson do not seem to give us an idea of *durée* which is 'pure,' and do not allow us to understand its fundamental role. But we did, importantly attain (i): an experiential grip on the idea of *durée* as descriptive of a salient aspect of temporal experience, in particular when examining the experience of sound and music. We can take on board an attenuated insight from the discussion of the previous section: there is a range of experiences which point out the idea of *durée* as applying to change perception.

In the present section, I started with the undemanding experiential insight captured in the Experiential Process Thesis: our experience of change is experienced as unfolding in time. I argued (rehearsing considerations from the previous chapter) that the thesis cannot be accommodated within existing views, and proposed *durée* as a potentially successful candidate for giving shape to the idea. The account I offered is easily generalizable due to the wide experiential range to which the Experiential Process Thesis straightforwardly applies, and it allows showing the fundamental role of *durée* in temporal experience. The 'fragmented' efforts of 'deep introspection' lend the idea of *durée* experiential support, though they do not attain it in its 'purity'. The theoretical and introspective efforts *converge* upon the idea of *durée* as a fundamental aspect of the ontology of temporal experience.

## V Concluding Remarks: Method and Experience

Bergson's account of temporal experience, I tried to show, can be productively brought to bear on a central issue in the philosophy of mind and time: the temporal structure of change perception. The key contribution involved a position on which the unfolding of successive phases in non-inferential experience of temporal properties are accounted for by that which Bergson terms *durée*. Homogeneous temporal properties, on the view, "flow … by a continual change of quality" (CM 212).

I presented Bergson's account as a proposal regarding the ontology of temporal experience. The dual-aspect ontology of change perception emerging from Bergson' work, as I interpreted it in the chapter, made room for considering *durée* both as a manifest feature of temporal experience (sections 1 and 3), and as a feature assuming explanatory priority in an account of change perception (section 4).

Bergson's account was, at the same time, developed in light of ideas from recent work on temporal experience. In the previous section, I argued that Bergson's view, and the experiential considerations adduced in its favour (examined in sections 1 and 3), can be bolstered by taking *durée* as the basis of the unfolding of states in temporal experiences, i.e. as accommodating the Experiential Process Thesis. We thus have in place a potentially successful argument for Bergson's proposal regarding *durée* being fundamental in an account of temporal experience, and we can see the position attaining general scope. My suggestion, then, involved a kind of 'symbiosis'[64] between Bergson's thought and insights from recent work on temporal experience.

*

[64] Or perhaps: 'endosmosis'.

By way of conclusion, I would like to cursorily measure (i) an interpretative claim I made in the third section, and (ii) the proposal I put forth in the fourth section, against an influential interpretation of Bergson's thought.

In the third section of the present chapter, I discussed a methodological proposal presented by Bergson in various contexts, from *Time and Free Will* onwards: we can reach an understanding of *durée* by an effort of introspection. This proposal, I showed, forms at least part of what Bergson means (in publications from 1903's 'Introduction to Metaphysics') by 'intuition'. Intuition involves an experience, or consciousness (CM 36) of *durée* (CM 35). My argument in the chapter, however, went beyond this, and developed an idea (in the fourth section) according to which we can expand our understanding of (temporal) experience by means of considerations pertaining to explanatory priority. We can understand *durée* as the basis of the progression inherent in homogeneous temporal properties.

Both of these ideas contrast with aspects of Deleuze's reading of Bergson in *Bergsonism* (1991 [1966]), an interpretation which has enjoyed considerable influence in the reception of Bergson's work during the past few decades (as noted recently by Lawlor and Moulard-Leonard 2016). Now, Deleuze himself acknowledges that *Bergsonism* includes frequent departures from the source material (Cressole 1973: 111; quoted in the introduction to Deleuze 1991: 8). In certain cases departures from the sources are perhaps unavoidable, and could be instructive. But the suggestions Deleuze makes with regards to method and experience in Bergson seem to (i) lie in significant tension with some of Bergson's central ideas,[65] and (ii) to impede developing Bergson's view of temporal experience in the way I proposed in this chapter, without proper textual support.

[65] Notwithstanding the independent interest of Deleuze's claims, and the role they play in Deleuze's own thought.

A key claim Deleuze makes in *Bergsonism* is that the term 'intuition' indicates for Bergson a philosophical method, comprising a set of rules or procedures which allow for precision in philosophy (1991: Ch 1).[66] According to Deleuze, intuition as a philosophical method *presupposes* Bergson's view of *durée* and temporal experience (1991: 13), with the latter being the upshot of a 'psychological description' (1991: 37). This suggestion implies two things relevant in the present context. First, it pulls apart an understanding of *durée* and temporal experience from theoretical considerations (e.g., ideas concerning explanatory priority); it does not allow to see how *durée*, and its place in an account of temporal experience, can be examined by means which are not purely experiential. Secondly, Deleuze's interpretation brushes aside Bergson's claims regarding 'intuition' as involving the experience of *durée*, as I presented it above. At least with regards to the latter claim, Deleuze's reading runs directly against an idea central to Bergson's position. It is not only the case that intuition, for Bergson, *has to do* with the experience of time. It "bears above all [porte .. avant tout]" (CM 35) on *durée*. Deleuze's claim here, then, does not hold up to critical scrutiny: intuition refers to the experience of *durée*.[67]

What about the claim which separates methodological considerations from ideas concerning experience, and temporal experience in particular? This does not seem to be entailed by Bergson's discussion of method. In a 1916 lecture delivered in Madrid, for example, Bergson notes two correlative aspects of his method in philosophy: (i) critical discussion and examination of theories on the matter at hand, and (ii) an effort of intuition which involves an experience coinciding with its object (EP 484). While an intuitive, or introspective effort is designated as a separate aspect of Bergson's method, this should not be seen as

[66] What the method involves, essentially, is a set of considerations regarding the articulation of philosophical problems and the creation of conceptual distinctions, in view of capturing the temporal nature of reality (1991: Ch 1).

[67] See Sinclair (2019a: Ch 7) for a take on Bergson's view of knowledge which is critical of Deleuze's separation between intuition and experience. See also Riquier (2009: 131-57) for rich and instructive recent discussion of intuition in Bergson.

implying that we should understand the inquiry into the nature of experience as cut off from theoretical considerations (e.g., ones relating to explanatory priority).

I have offered only the beginnings of a discussion of method and experience in Bergson. But there seems to be room for the type of expansion upon Bergson's claims I have offered in this chapter. My argument in the chapter involved considering theories of temporal experience, and in that respect broadened Bergson's theoretical menu (in the Madrid lecture, Bergson mentions scientific theories; EP 484). But this need not be understood as a radical departure from Bergson's ideas on method.

# *4*

# Processual Interventions: The Memory Theory & Unity Over Time

*Our cognitive, evaluative, and emotional attitudes to temporal aspects of our lives depend in various ways on features of our memory. But does memory figure in immediate, or non-inferential, temporal experience? And if so, in what way?*

*In previous chapters, I focused on the unity of immediate temporal experience. Our immediate experience of change and motion, however, seems to be tightly woven into a wider fabric. Notwithstanding the diversity of its objects or contents, experience in the waking state is arguably continuous in the course of seconds, minutes, and hours. Do we need to invoke additional explanatory tools, beyond those discussed in the previous chapters, in order to explain such a unity – the unity of experience over time?*

## Introduction

In this chapter, I will explore two aspects of temporal experience which have occasioned long-standing debate in the literature: (i) the relation between memory and the non-inferential experience of temporal features, and (ii) the unity of experience over time, beyond the interval of the specious present.

Numerous thinkers have considered memory to be an essential ingredient in an account of the temporal features of immediate experience. I discuss this proposal – the memory theory of change perception - in

the first part of the chapter. The memory theory has been productively construed (Phillips 2010, 2018; Hoerl 2009) as worked out in two main stages, which I shall survey in what follows: the 'traditional' account (found, e.g., in Reid 1785, Brentano's 1870's lectures, Mellor 1998), and the 'modified' memory theory (found, e.g., in James 1890a; Husserl 1991 [1893-1917]; Stout 1930; O'Shaughnessy 2000; Phillips 2010, 2018).

While aspects of Bergson's treatment of memory have been extensively treated in scholarship, Bergson's views on the memory theory of non-inferential change perception have not received significant attention. In the chapter, I will show that Bergson outlines a memory theory which takes up the appealing idea setting apart the 'modified' account from the 'traditional' view. Bergson's reflections, however, also indicate an additional intervention in the context of defending the memory theory. I'll point out that the modified view, as discussed in recent literature (particularly, in Phillips 2010, 2018), faces difficulties in decisively motivating the appeal to memory. An idea from Bergson, I will suggest, can make a difference. Bergson's account of the role of memory in immediate change perception includes a compelling experiential insight, which can be employed in successfully motivating the memory theory. The position emerging from Bergson's work, I shall argue, amounts to a distinct variant of the view, which I shall term the 'dynamic memory theory'.

The second issue I will examine in the chapter is that of the 'long-term' unity of experience – the unity characteristic of experience beyond the scope designated by the 'specious present'.[1] What explains this kind of unity? Does an account of such unity *over time* require additional terms, beyond those at play in explaining the unity or continuity of experience *at a time*? A number of accounts of unity over time have

[1] There have been various views regarding the metrical correlate of the specious present, ranging from 200ms (Grush 2016), up to a few seconds or more (Pöppel 2004, Lockwood 2005, James 1890a). For present purposes, I shall assume that the term designates an interval of around a second. See also Ch 2, fn. 7.

been offered. I will explore four prominent options – the 'discrete block' model, Broad's 'overlapping contents' view, the Foster-Dainton 'overlap' Model, Tye's 'one experience' view – and argue in favour of an account which appeals to Bergson's *durée* as a theoretically parsimonious and experientially appealing alternative.

## **I** The Memory Theory: Tradition, Modification, and Dynamism

When we consider our experience from a broad perspective - taking into account our cognitive, emotional, and evaluative attitudes which concern temporal aspects of our lives - it is evident that in many cases memory does not possess a merely causal role in relation to experiences that have temporal contents. At least some of these aspects of experience are constitutively related to memory. That is, they would not be the kind of experiences they in fact are if memory did not figure[2] in them.[3] Our experiences of nostalgia, of grief, our reflections on the way time has been passing more 'quickly' as we have been growing older, our appreciation of the progress we've been making – all of these cases arguably include the experienced recollection of past events, and are thus not only causally related to past experiences. A constitutive relation to memory also seems to obtain in the case of our more banal reflections on temporal order, for example when I try to remember whether I watered my plants yesterday, or the day before.

My focus here, however, is on a much more tightly circumscribed topic – the relation between memory and our non-inferential experience of change and motion. And my central claim will be that Bergson's

[2] There are, broadly, two ways in which memory can constitutively figure in experience: (i) remembered things or events can be taken to be included in the contents of current experiences; (ii) the remembered things or events can be (further) taken to be experienced *as memories*. Marking a difference between the two is crucial in the context of the 'modified' memory theory of change perception (James 1890a; Stout 1930; Husserl 1991 [1893-1917]; O'Shaughnessy 2000; Phillips 2010, 2018), which I explore below.

[3] For recent treatment of the causal vs. constitutive distinction, see Dagupta (2017).

views on this relation, which have not been discussed in significant detail in the literature,[4] can shed new light upon recent debate on the topic. I'll approach this in three steps: first, I'll examine the memory theory in its two main stages, situating Bergson's views via-à-vis this development; second, I'll explore a contemporary defence of the memory theory (Phillips 2018, 2010) and underline a limitation in the account; and finally, I'll focus on a feature of Bergson's reflections on memory and temporal experience which can potentially address this limitation.

## *The Memory Theory: Tradition and Modification*

Various thinkers have defended a *memory theory* of immediate temporal experience, on which memory is taken to be not only causally related to but also partially constitutive of our experience of change. An influential source for the position is Reid's (1785) view, which I mentioned in the second chapter of the present research (Ch 2, section 1) in a different context. On Reid's view, sense perception is limited to the present moment in a 'strict' sense:

[4] Bergson's views on the faculty of memory and its role in experience broadly construed have been, by contrast, the object of sustained study which has also extended beyond the confines of Bergson scholarship. For all the fact that Bergson's thought as a whole was not widely discussed after the first decades of the previous century, in the Anglophone context in particular, Bergson's reflections on the faculty of memory have exerted a significant, if somewhat 'subterranean,' influence upon the understanding of memory and its structure in 20th century philosophy and psychology. This holds true, in particular, for the distinction between two types of memory – 'habit memory' and 'image memory' – advanced in *Matter and Memory* (MM 79-90). Key instances of this influence include Russell's chapter on memory in *Analysis of Mind* (1921: 166ff.), and the distinction between 'memory systems' in the works of two of the most prominent memory researchers in recent decades – Tulving (e.g., 1986: 307) and Shachter (1996: 165, 169-70; see also Tulving and Shachter 1994: 6, 8). Bergson's account of memory, however, encompasses much more than this influential distinction. In *Matter and Memory*, as well as in later papers and courses (many of the papers collected in *Mind-Energy* (1920 [1919]), and the recently published 1903-4 College de France course *Histoire des théories de la mémoire* (2018)), Bergson's position regarding the types and features of memory, and the way these figure in experience, are intertwined with his views on the mind-body relation, and are developed in relation to an in-depth examination and critique of positions regarding memory and memory-related pathologies from the psychological literature of his period. For recent accounts of Bergson's views on memory, see Ricoeur (2000: 21-30, 50-3, 427-40); François (2008b: 31-6); Ansell-Pearson (2018: Ch 4); Perri (2017); Sinclair (2019a: Ch 4).

> [I]f we speak strictly and philosophically, no kind of succession can be an object either of the senses, or of consciousness; because the operations of both are confined to the present point of time, and there can be no succession in a point of time. (Reid 1785: 325-6)

Reid is working with an Augustinian idea of the present as having no temporal extension whatsoever, an "interval with no duration" (Augustine 2008 [397-400]: 232) or an "indivisible point of time, which divides the future from the past" (Reid 1785: 326). And as sense perception is limited to the present, we cannot be said to perceive succession by sense. Now, and here Reid also follows Augustine, we do often *speak* as if the present has temporal extension. We say that we see motion (1785: 326), as we can consider the present to vary according to the particular context of discussion – we speak of the present hour, year, or century (1785: 326; Augustine 2008 [397-400]: 231-2).[5] This kind of inaccuracy, Reid notes, is perfectly legitimate in "common life" (1785: 326). Philosophers, however, should insist on a 'strict' meaning of the expression 'the present moment'. This first point leads to the positive aspect of Reid's argument concerning the origin of our idea of succession:

> [I]t is only by the aid of memory that we discern motion, or any succession whatsoever: we see the present place of the body; we remember the successive advance it made to that place: the first can then only give us a conception of motion, when joined to the last. (1785: 327)

We do in fact experience temporal features, despite the fact that this awareness is not strictly perceptual. Reid is here offering a bare bones version of the traditional memory theory. On the view, our awareness of change essentially depends on memory, it is memorial awareness.[6]

[5] Augustine, unlike Reid, does not consider sense perception to be confined to the present, and does not make the Reidian distinction between memory and perception presented below (e.g., 2008 [397-400]: 242-3).

[6] It might be suggested that Reid's account is of the way we acquire a "conception" (1785: 327), rather than an experience, of motion. Reid, however, is also arguably aiming for an account of the way we are made aware, "discern" (1785: 327) or "observe" (1785: 326) change. For relevant discussion, see: Falkenstein (2017: 48-9).

The Reidian account faces numerous challenges. Here's a first. Take the opening notes of Bach's Cello Suite #1 in G Major: G-D-B …



The form of the view as presented by Reid above needs to be refined in order to seem at least initially plausible. We would need, for example, to be able to account for a structure in our awareness of change (in memory) that maps onto the progression of the notes. When we experience the first B, it wouldn't be enough to say that we remember G and D together with the sense perception of B, which would be compatible with D having been heard before the G, and with the G having been heard two months ago (see Dainton 2006/2000: 124). We would want to say that we remember having *just heard* D *with a short-term memory* of G, and having *previously heard* G when the D was played. Without temporal distance and order as part of the traditional memory theory, it is wildly implausible.[7]

Even with the idea of distance and order in place, however, the view seems to face an insurmountable challenge, which has been noted above (Chapter 2, section 1).[8] On the traditional memory theory, remembering what occurred a year ago and what happened two seconds ago involves experiences of the same kind. Likewise, noticing that something changed in relation to the way it was a minute ago, and being aware of a note played half a second ago on the cello involves the same type of awareness. This kind of identity lies in conflict with what is widely taken to be a striking experiential difference between *perceiving*

Additional important instances of the traditional memory theory can be found in Brentano's lectures on the consciousness of time, as described by Husserl (1991 [1893-1917]: 13-4), and Mellor's (1998: 122-3) explanation of our short-term awareness of time. Mellor's focus in the relevant passage, however, is solely on the directionality of temporal experience.

[7] It could perhaps be claimed that Reid's view already includes something like the idea of temporal distance and order, when he writes (in relation to the spatial case) of remembering the "successive advance [the object] made to [its present] place".

[8] See also Phillips (2018: 289), for discussion of this objection as lethal for the traditional memory theory.

*change* and *noticing that something has changed*, a difference influentially noted by Broad (1923: 351) and Russell (1927: 280-1).[9] Watching a shooting star, for example, is different than noticing that the moon has changed its position. This kind of difference does not seem to amount to one between being aware that change has taken place over one minute, say, rather than one second, a type of difference that can be accommodated within the traditional proposal. The suggestion is rather that are aware of change in the two cases in a *different way*.[10]

A way to respond to this challenge is available from conceptual resources supplied by a non-traditional form of the memory theory.[11] On such a view, the perception of change is explained by the contribution of a particular type of memory, distinguished from recollection or episodic memory. The *locus classicus* of the position is James' chapter on memory from *The Principles of Psychology*. The type of memory

[9] Broad frames this as a "notorious fact" (1923: 351), rather than a particularly original insight. As we shall see below, the difference Broad and Russell are bringing out here can be accommodated by accounts which predate their work, e.g. James' (1890a) and Bergson's (1896).

[10] Another *prima facie* powerful argument against the memory theory, which can also be leveled against the 'modified' form of the view presented below, has been discussed by Dainton (2006/2000: 126-7; 2010/2001: 105-6) and Tye (2003: 87-8). If, for example, we are considering the experience of a bird's movement through positions L1, L1, L3 in times t1, t2, t3, the memory theory would account for this as an experience of the bird in L1 (at t1); then in L2 (at t2) together with a short-term memory of the bird in L1 (at t1); and then of its position L3 (at t3), together with short-term memories of its location L1 (at t1) and L2 (at t2). This might seem problematic, because we experience not only phases of the movement or change, but also the phases as *succeeding* one another. We experience the bird in L2 (at t2), as *following upon* it being in location L1 (at t1). How can the memory theory account for this experience of succession? By hypothesis, we cannot remember what we have not perceived, but it is in part due to memory that we are meant to be supplied with an experience of succession. It seems that the memory account has to presuppose what it is attempting to explain.

As Phillips (2018: 288-9) notes, however, this is not necessarily the case. The memory theory can be seen as offering an account of succession, in that it explains the experience of succession as involving the connection of a short-term memory with the present precept. This, I take it, requires us to attribute to memory the capacity to make a positive contribution within experience, namely in supplying the connection implied in succession. But considering memory as productive in this sense does not seem to present a significant obstacle.

In describing Phillips' response, I've used 'connection' instead of Phillips' 'conjunction'. Conjunction is symmetrical, and succession strikingly isn't.

[11] Another way for a theory of temporal experience to accommodate this difference is to understand it as a difference between memory and perception. Memory would supply our experience of noticing that change has occurred, while perception endowed with noticeable temporal extent is what gives us the experience of perceiving change. This would mean opting out of a memory theory altogether. See my discussion further below in this section, for a response on the part of this kind of proposal to Phillips' modified memory theory.

associated with the immediate perception of change is termed, in James' account, 'primary' or 'elementary'[12]:

> [W]hat elementary memory makes us aware of is the just past. The objects we feel in this directly intuited past differ from properly recollected objects. An object which is recollected, in the proper sense of that term, is one which has been absent from consciousness altogether, and now revives anew. It is brought back, recalled, fished up, so to speak, from a reservoir in which, with countless other objects, it lay buried and lost from view. But an object of primary memory is not thus brought back; it never was lost; its date was never cut off in consciousness from that of the immediately present moment. In fact it comes to us as belonging to the rearward portion of the present space of time, and not to the genuine past. (James 1890a: 646-7)

James is here articulating the idea setting apart what can be called the modified memory theory (following Phillips 2010, 2018; Hoerl 2009) from the traditional account. Our perception of change, on this version of the view, is accounted for by the constitutive contribution of memory, in that temporal perception would not be what it is were it not for the involvement of primary memory. This involvement, however, is not susceptible to the challenge expressed by Broad and Russell. The modified view allows us to bring out a difference in kind between perceiving change (e.g., watching a shooting star) and noticing that change happened (e.g., noticing the moon has moved). Direct, or immediate, perception of change is due to the preservation of the perceived which is characteristic of memory, but this is a preservation of an object which "was never cut off in consciousness from … the immediately present moment".[13]

[12] The type of memory described here has also been called 'retention,' following Husserl (1991 [1893-1917]), although retention theorists frequently resist calling it 'memory'.

[13] The modified memory theory is defended, for example, in Stout (1930), Husserl (1991 [1893-1917]), O'Shaughnessy (2000), and recently in Phillips (2010, 2018).

The relation of Bergson's thought to the development of the memory theory has not been examined in significant detail.[14] In *Time and Free Will*, Bergson hints that memory plays an essential role in our perception of change, when he explains the experience of temporal properties as due to the "synthesis carried out by our consciousness between the actual positions and what our memory calls the former positions" (TFW 124). But this is not decisive. The work does not explore the relations between perception and memory, so it does not seem to be possible to ascertain whether the view is a 'traditional' or 'modified' version of the account. From 1896's *Matter and Memory*, however, we can see Bergson presenting an account of change perception which appeals to memory, and which involves distinguishing this kind of memory from recollective or 'secondary' memory:

> However brief we suppose our perception to be, it always occupies a certain duration, and involves, consequently, an effort of memory which prolongs, one into another, a plurality of moments … Memory in … two forms, covering as it does with a cloak of recollections a core of immediate perception, and also contracting a number of external moments into a single internal moment, constitutes the principal share of individual consciousness in perception, the subjective side of the knowledge of things. (MM 34)

The relevant point in this passage is the distinction Bergson makes between (i) recollection and (ii) a memory which preserves phases forming the continuity characteristic of *durée* in a "single internal moment," and in that sense seems to be part and parcel of immediate perception itself.[15] Memory is constitutive of the 'concrete present' – the present as experienced – quite a different thing than what one might suppose when taking up a 'strict' definition of the present as an "indivisible limit which divides the past from the future" (MM 150).

[14] Though see a number of remarks in Sinclair's *Bergson* (2019a: 47-8, 93), and a brief related note in Perri (2017: 510-11).
[15] This distinction is noted by Sinclair (2019a: 93) and Perri (2017: 510-11).

The relation of *durée* to memory, and the difference between the two types of memory is made further explicit in a passage from *Duration and Simultaneity*'s third chapter ('Concerning the Nature of Time'), in which Bergson characterizes the continuity of immediate experience:

> What is this continuity? That of a flow or passage … and this transition, all that is naturally experienced, is duration itself. It is memory, but not personal memory, external to what it retains, distinct from a past whose preservation it assures; it is a memory within change itself, a memory that prolongs the before into the after. (DS 44)

Two things can be underlined here. First, Bergson explicitly *identifies durée* with memory, which rules out taking memory to possess only a causal role with regards to the experience of change.[16] Secondly, Bergson further distinguishes between the type of memory implied in the continuity of experience, a "memory within change itself" (James' primary memory, which is not "cut off in consciousness [from] the immediately present moment"), from "personal memory"[17] which is "external to what it retains" (James' secondary memory, which "has been absent from consciousness … and now revives anew").

We can, then, secure an understanding of Bergson's position as taking up the idea central to the modified memory theory: memory of a specific kind, a memory "within change itself," plays a constitutive role in immediate temporal experience.[18]

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[16] By the claim that *durée* 'is' memory, I take Bergson to be arguing that memory plays an essential role in *durée*. There is perhaps a certain looseness in the claim regarding identity. See also fn. 23.

[17] Bergson's recently published College de France course on memory, delivered between the years 1903-4, includes extended reflections on the notion of 'personal' memory (HT 116, 119ff.).

[18] One can also find frequent discussion of the relation between memory and temporal experience in the period between his first two works and 1922's *Duration and Simultaneity*. 'Introduction to Metaphysics' (1903), for example, includes an emphatic endorsement of the constitutive role of memory in *durée*:

> There is no mood, however, no matter how simple, which does not change at every instant, since there is no consciousness without memory, no continuation of a state without the addition, to the present feeling, of the memory of past moments. That is what duration consists of. Inner duration is the continuous life of a memory which prolongs the past into the present, whether the present distinctly contains the ever-growing image of the past, or whether, by its continual changing of quality, it attests rather the increasingly heavy burden dragged along behind one the older one grows. (CM 211)

## *The Preservation of Past Psychological Success: Phillips' Defence of the Modified Memory Theory*

Contemporary work on temporal experience does not frequently appeal to the memory theory. The Cinematic View, on which perception is limited to instantaneous 'snapshots,' relies rather straightforwardly on the memory theory in its traditional form. But as noted above (see Chapter 2, section 1), this model has been largely rejected during the past century (though see Chuard 2011, 2017 for a defence of the view). Retentional and Process theories, the two competing models of temporal experience in the contemporary literature, do not typically employ the memory theory. One can find, for example, explicit criticism of the memory theory in Lee's (2014) Retentional model,[19] as well as in Dainton's (2006/2000) and Hoerl's (2009) Process accounts of temporal experience.[20]

In recent work, Phillips (2018, 2010) has defended a form of the memory theory which he takes to apply both to the Retentional and Process models of temporal experience. A broad aim of his paper involves suggesting that the distinction between the models of temporal experience does not hinge on whether they appeal to the memory theory. Seeing that all the models might well involve attributing to memory a constitutive role in change perception allows us to focus on the central issue with regards to which the

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Memory is described here by Bergson as implicated both in immediate temporal experience and in the 'long term' unity of experience. See the second section of the present chapter for a discussion of 'long-term' unity, or the unity of experience over time. Further passages in which Bergson notes the relation between memory and *durée* include IT 43, 55, 63; CE 4, 20.

[19] Lee's (2014) view is a version on the Retentional model, in that on his account our experience of change is the content of quasi-instantaneous states, and there is thus no explanatory relation between the structure of temporal experience and its content (see Chapter 2, section 1 for description of the Retentional model). Lee explicitly denies, however, a constitutive role for memory (including 'retention' memory, as described by Husserl) in change perception. In light of this rejection, Lee terms his position the 'Atomic View' of temporal experience.

[20] Soteriou's (2010, 2013) Process account does not involve a discussion of the memory theory. In recent work (Crowther and Soteriou 2017: 189, 198 fn. 15), however, he seems to indicate an agreement with Phillips on the points to be discussed in this sub-section.

views diverge: the relation between temporal experience and the temporal profile of experience itself. More specifically, on the question of whether temporal experience itself unfolds in time (2018: 294-5; see discussion in previous two chapters). I'll return to this suggestion at the end of the present section.

Phillips pursues this aim by specifying the claims made within the memory theory in its modified form, and showing that the theory applies to the Retentional View - contra Lee's 2014 rejection of the memory theory - and the Process View - as presented by Dainton (2006/2000). Phillips' argument starts from appreciating that the distinguishing feature of all forms of memory is a preservation of 'cognitive contact' with the past, or the continuation of past psychological success.[21] Episodic memory, James' 'secondary' memory, involves preservation of past acquaintance with things or events; semantic memory involves the preservation of past knowledge (2010: 194; 2018: 291). Primary, or elementary, memory can be seen as involving the continuation of past psychological success by allowing us to have experiences of things succeeding one another. If we are considering the succession of notes *do* -> *re*, for example, "hearing *re* involves primary memory insofar as it involves hearing *re* in a particular way, namely as succeeding from *do*. This modification of one's manner of awareness plausibly counts as a form in which psychological success (namely awareness of *do*) can be preserved" (2018: 291).

Crucially, the idea of preservation of past psychological success in primary memory does not depend on the presentation of preceding parts or phases of a succession *as past* – the modified form of the memory theory does not involve tensed experiences of the phases in succession (2018: 290-1). Successive phases can be considered as parts of one unified, albeit complex, perceptual experience of change. In that way, the modified memory theory can hold on to the distinction between noticing that change happened – which would include tensed experiences – and the immediate perception of change. The latter involves

[21] Phillips here draws upon Martin's (2001) account of episodic memory.

the preservation of past success in a memory 'internal to change,' experiences which are not retrieved since they have never been absent.

This construal of the memory theory in its modified form, in line with the ideas from James and Bergson presented above, allows Phillips to argue that both the Retentional and Process accounts can be understood as appealing to memory (2018: 289-94). The idea of the preservation of past psychological success, according to Phillips, is implied in the very idea of an experience of succession, regardless of the relation a theory of temporal experience takes to obtain between the content of temporal experience and its structure. That is, regardless of whether experiences of succession are themselves successive. Both the Retentional and Process approaches assert that we immediately experience succession, and experiencing succession involves the preservation of past psychological success – and hence memory.

One may wonder, however, whether the turn to memory has been decisively motivated in the context of Phillips' argument. The preservation of past psychological success is meant to explain our experience of temporal properties, but it has seemed to a number of theorists that the appeal to memory in this context is redundant. Hoerl, for example, sketches out an alternative on which succession simply falls under the scope of a temporally extended experience (2009: 8), which need not involve any appeal to memory. The modified memory theory, according to Hoerl, does not seem to describe a real contact with the past, but only a "proxy for that contact" (2009: 4). As I understand Hoerl's point, it is that when we look at what the memory theory is meant to account for – the experience of succession – perception itself already possess all the necessary resources.

Dainton also expresses a similar thought, recently noting with regards to the involvement of memory in Bergson's *durée* that "a case can be made … for holding that in these contexts [i.e., the contexts in which Bergson examines the relation of *durée* to memory] Bergson's "memory" is simply the unifying relation

which connects the earlier and later phases into a single episode of *durée*" (2017b: 104 fn. 15). On Dainton's view of temporal experience, the experiential unifying relation which binds together phases of change into a single experience – 'co-consciousness' – does not involve memory of any kind.[22] An analogous line of thought comes up in Lee (2014), who takes it that a single state, devoid of any relation to memory, can satisfactorily be considered as having succession as its content. There is no work to be done by memory in the immediate apprehension of succession.

It is difficult, I think, to make out who has the upper hand in this debate. Given that what we are accounting for is the experience of succession, there does not seem to be a decisive reason either in favour, or against, the memory theory of change in its modified form. Phillips' version of the view, in line with the aforementioned points mentioned in relation to James and Bergson, is coherent, and successful in escaping the challenge articulated in Broad's work. There is a measure of intuitive appeal to the idea of a preservation of past psychological success as required for an account of change perception, but it seems that the modification of awareness involved in experiencing succession can just as well be thought (as suggested by Hoerl, Dainton, and Lee) to be inherent to temporal experience itself, as distinct from memory.

*The Dynamic Memory Theory*

Bergson, as noted above, presents a view in accordance with the idea at the heart of the modified memory theory. As in James' and Phillips' accounts, on Bergson's view a type of memory distinct from recollection is implied in our non-inferential experience of change. Memory prolongs the "before into the after" (DS 44) and is thus essential to our experience of succession. As I noted with regards to Phillips' proposal, this

[22] See Chapter 2, section 3 for a discussion of Dainton's view.

idea in itself does not seem to decisively carve out an explanatory niche for the memory theory. What I would like to suggest, at this stage, is that we can find in Bergson an additional claim which could make the appeal to memory more persuasive. The claim is that our awareness of change does not only involve the preservation of past psychological success; it involves the preservation of that which is 'receding' within the present of our perception, the prolongation of that which is no longer in what is.

According to Bergson, *durée* is the "continuous life of a memory which prolongs the past into the present" (CM 211). In this sense, the role of (primary) memory in immediate temporal experience involves the preservation of the past, the 'building up' of states in the course of changes and movements. My experience of the succession of the notes *G-D-B* in the opening of Bach's Cello Suite #1, for example, is in this sense due to memory. So far, we are in the realm of the modified memory theory as presented by James (1890a), and as recently defended in Phillips (2018). But the awareness of the change also involves memory because these notes *recede* into the past as they are perceived; or rather, as Bergson might have preferred, a new present is arising at each stage of the succession, constantly replacing the past moments. This is particularly evident from Bergson's in passage from *Duration and Simultaneity*:

> It is impossible to distinguish between the duration, however short it may be, that separates two instances and a memory that connects them,[23] because *duration is essentially a continuation of what no longer exists into what does exist.* This is real time, perceived and lived. (DS 49)

The idea, I think, is experientially compelling, even if we seldom pause to appreciate it or its significance. When we hear the note B in the phrase G-D-B of the cello suite phrase, for example, there is a sense in which the G is *no longer*, though it is still present, or preserved, in our consciousness. Jumping into a cool

[23] There is a certain looseness to the expression "impossible to distinguish between" here (as also noted in fn. 16 with regards to the passage from DS 44). I take to mean that it is impossible for *durée* to be a feature of experience without memory being involved.

lake on a summer's day, when we hit the water our experience of swiftly moving through the air is preserved in our awareness, but is 'no longer'. What is recognized by Bergson's suggestion is quite simple, notwithstanding the apparently paradoxical formulation of a "continuation of what no longer exists into what does exist".

The idea of a continuation of what no longer is into what exists is arguably absent from the modified form of the memory theory as discussed above, on which what memory explains is only the preservation of past moments. And it seems to allow decisively singling out a role for memory in change perception. Beyond preservation of successive terms, the experientially appealing idea of a perception of what is 'no longer,' in the present, is the key.[24]

Now, the immediate response to this idea could well be that it seems to bring us within the remit of the critique applied to the traditional version of the memory theory, based on the idea captured in Broad's (1923) and Russell's (1927) remarks. The criticism would apply if what we would be describing was an experience that is *of the past*, in the same sense that episodic memories are. This would mean that when we experience the note B in the succession of notes G-D-B within the specious present, for example, the G would be 'no longer' in the same sense that hearing the G 30 seconds or 5 hours ago would be 'no longer'. Watching a shooting star would involve phases which are 'no longer' in the same sense that the moon has moved involves past experiences which are 'no longer'. We would not then be able to account for a distinction between *noticing that change happened* and *perceiving change immediately*, which is the important insight expressed by Broad. This would indeed be a bad result.

[24] Dainton's point concerning the relation of memory to *durée* noted above – that it is "simply the unifying relation which connects the earlier and later phases into a single episode of *durée*" (2017b: 104 fn. 15) - does not, then, fully capture the scope of Bergson's position.

This, however, is not what the version of the memory theory which involves recognizing "the continuation of what no longer exists into what does exist" implies. The key, I think, is that the 'continuation' we're invited to notice is not of an object or content as *past* (e.g., in the past experiences of the moon's location), but rather what might be called *the becoming present of the past.* To put it in terms of tense, we're invited to consider not a tensed experience, but an experience which can be put in terms of 'dynamic tensing' – of the moments *becoming present, becoming past,* continuously. This experience of 'tensing' in the scope of the present, absent from the account presented by James and Phillips, indicates the manner in which a primary form of memory (distinct from episodic, or 'personal,' memory) is constitutive of the non-inferential experience of change. The experience is tensed when it is no longer within the scope of the specious present, but while it is, it is dynamically experienced as being preserved while becoming past.

Bergson's ideas on memory and temporal perception allow us, then, to articulate what might be called a 'dynamic memory theory'. Like the modified view, recently defended by Phillips, it avoids the objection which was seen to be deadly for the traditional account. Unlike the modified memory theory, however, the position singles out a unique theoretical niche for memory based on what I take to be a cogent experiential insight: the 'dynamic tensing' within the scope of non-inferential change perception.[25] The view thus firmly motivates the turn to memory, in contrast with the version of the memory theory recently presented by Phillips.[26]

[25] The dynamic memory theory I'm describing has interesting similarities with Husserl's 'Modal Retentionalism,' on which successive phases are presented under different temporal modes – i.e., as receding more and more into the past – but a comparison between the views lies beyond the present scope.

[26] The view I'm presenting here may also be considered a version of the modified memory theory, insofar as the role attributed to memory as partially constitutive of change perception, prolonging the "before into the after" (DS 44), is essentially the same as that described by Phillips. The difference concerns the phenomenological feature I highlighted in this sub-section, and the way this feature can serve to decisively motivate the turn to memory.

Finally, recall Phillips' claim that the Retentional and Process accounts should not be understood as distinguished with regards to role they attribute to memory in an account of immediate change perception. The views, Phillips suggests, diverge on the question of whether temporal experience itself has temporal structure. The considerations adduced here, in favour what I called the 'dynamic memory theory' have left Phillips' insight intact. I have not appealed to the issues discussed in previous chapters concerning the Process View, and the relation of Bergson's account to the position. The two issues – (i) the temporal structure of change perception; (ii) the role of memory in temporal perception – can be considered separately.

## **II** *Durée* and Unity Over Time

My focus thus far has been overwhelmingly on immediate, or non-inferential, temporal experience. But in order to have an account of temporal experience which is at least initially satisfying in terms of its coherence, explanatory adequacy, and the force of its experiential claims, we must address the unity characteristic of our experience over time. Do we need additional experiential terms or relations in order to explain this type of unity, beyond those invoked in order to account for temporal experience at a time, or within the scope of the specious present? I'll suggest a negative answer. This is not obvious, however, and contrasts with a number of proposals from the literature. The discussion which follows builds upon aspects of the view delineated in the previous chapters, so let us take stock of the relevant issues.

In the second chapter, I argued that existing versions of the Process View do not satisfyingly make room for a pervasive pre-reflective sense of the progression in temporal experience, an idea captured in what I called the Experiential Process Thesis (EPT). In the third chapter, extracting insights from Bergson, I

proposed an account which was aimed at successfully accommodating the EPT. Bergson's view, I showed, is a dual-aspect account of temporal experience. The first aspect is Bergson's *durée,* which denotes a qualitatively manifest continuous progression. *Durée* is a primitive aspect of experience, in that it is not structured out of distinct states, phases, or moments. The second aspect of temporal experience – the discrete succession of states – depends on *durée* for its progression or 'alignment'. The dependence, however, is only partial. States are homogeneous, in that they includes parts which are qualitatively identical, and their homogeneity is dependent on an organizing principle independent of the flow of time. Dependence, on Bergson's view as I read it above, goes only one way – *durée* itself is independent of the homogenous temporal properties, while the latter are dependent upon *durée* for their alignment, or progression.

The two aspects of the ontology of temporal experience – the qualitative progression of *durée*, and the homogenous temporal properties – underline the kind of unity characteristic of immediate change perception. Our experience involves unified states, composed of discrete phases, which unfold, or 'build up' throughout an interval in virtue of a primitive qualitative progression, or flow.

Let's move on beyond the ideas presented above. In contrast with a number of alternatives from the recent literature on temporal experience (Phillips 2011; Hoerl 2013; see also Soteriou 2010, 2013; Rashbrook 2013), on the view I developed in relation to Bergson's work the unity of the interval – the 'specious present,' or the 'temporal field' – does not have any role to play in explaining the continuity of, or the progression of states in immediate temporal experience. The specious present, the interval we designate as the present, nonetheless has an important place in Bergson's account of temporal experience – it designates a limitation of our attention span. This is brought out in a passage from the 'The Perception of Change':

> Our consciousness tells us that when we speak of our present we are thinking of a certain interval of duration. What duration? It is impossible to fix it exactly, as it is something rather elusive. My present, at this moment, is the sentence I am pronouncing. But it is so because I want to limit the field of my attention to my sentence. This attention is something that can be made longer or shorter, like the interval between the two points of a compass … The distinction we make between our present and past is therefore, if not arbitrary, at least relative to the extent of the field which our attention … can embrace. The "present" occupies exactly as much space as this effort. As soon as this particular attention drops any part of what it held beneath its gaze, immediately that portion of the present thus dropped becomes *ipso facto* a part of the past. (CM 178-9)

The central idea expressed in this passage is that the present is relative to the deployment of our attention. Bergson also goes further in suggesting that this attention is flexible (perhaps *very* flexible, as suggested in the middle section left out of the quote above), but we do not have to go as far as that. Indeed, we need not go as far as saying that it is noticeably flexible (in normal circumstances). It seems sensible to think that there are systematic limitations concerning the temporal extent which our attention can embrace. It is nevertheless the case that there have been very different estimates about the extent of the specious present, from several hundred milliseconds, up to a number of seconds or more,[27] and perhaps some wiggle room can be admitted. There are also perhaps unique cases or states in which this attention can be significantly widened.[28]

The opening of the 'temporal field' marking off the experienced present in virtue of the distribution of our attention explains the *discontinuity* we find in experience, rather than its continuity. But this type of discontinuity introduced by our attention span need not be understood as available to us straightforwardly

[27] See fn. 1 above.

[28] Bergson suggests that this might be the case in near-death experiences (CM 180).

in experience. It can be taken as manifest when we apprehend a difference between perceiving change (which would involve an experience within the scope of the specious present) and noticing that change happened. The fact that the latter aspect stands out makes the limitation of attention apparent.

What is clearly manifest, on the other hand, is that our limited temporal attention span is experienced against the background of a basic dynamic continuity, which Bergson attributes to *durée* (CE 5).[29] This seems to be a rather salient experiential insight. Think, for example, of hearing a passage from a song. In the last section of Bill Withers' 'Lovely Day,' Withers sustains a note for 18 seconds (one of the longest sustained notes in recorded history) – a length of time far beyond the most generous estimation regarding the extent of the specious present. While listening to this note, there are many changes and variations we experience. But there does not seem to be any difference in terms of the overall continuity of temporal experience itself. The "uninterrupted solidarity of the before and the after" (DS 50), the seamless

[29] Bergson mentions the continuity beyond the limitations of attention, in this passage from *Creative Evolution*, in tandem with the idea of the continuous background to the discontinuity in experienced contents – the discontinuity inherent in the diversity and interruptions in the objects and events we perceive. The discussion of the way differences in the contents of experience relate to the question of the 'stream-like' nature of experience goes back to James' chapter on the 'Stream of Thought,' and has been recently taken up by Strawson (1997), Tye (2003), and Dainton (2006/2000, 2017a).

After presenting the idea of the 'stream of consciousness,' of experience which is continuous rather than "chopped up in bits" (1890a: 237-9), James responds to an objection which involves noting "sudden *contrasts in the quality* of the successive segments of the stream of thought" (1890a: 239), for example hearing a thunderclap, or seeing a new object. "Does not a loud explosion rend the consciousness upon which it abruptly breaks, in twain? Does not every sudden shock, appearance of a new object, or change in sensation, create a real interruption, sensibly felt as such, which cuts the conscious stream across at the moment at which it appears" (1890a: 239-40). James considers this objection to be based on overlooking two aspects of experience: (i) the distinction between the character of our experience itself, and the character of its objects; and (ii) the continuity that characterizes the contents of our experience beyond their qualitative differences. The first thing we miss is that experience itself is continuous, despite the discontinuity of its objects - transitions and changes are themselves experienced continuously (1890a: 240). The second aspect we overlook is the qualitative continuity found in the contents of experience. Taking as an example the hearing of thunder after a period of silence "into the awareness of the thunder itself the awareness of the previous silence creeps and continues; for what we hear when the thunder crashes is not the thunder pure, but thunder-breaking-upon-silence-and-contrasting-with-it" (1890a: 240).

Strawson has recently raised concerns relevantly similar to those considered by James, regarding the way in which the a 'stream-like' understanding of experience seems to be vitiated the fact that it involves a "constant restarting," or "shooting off, fuzzing, shorting out, and stalling" (1997: 421-2). This has elicited responses by Tye (2003: 104-5) and Dainton (2006/2000: 117-20) roughly along the lines of James' response.

continuity characteristic of non-inferential change perception, seems to also be descriptive of the unity of experience over time. If, for example, we are considering one second as the extent of the specious present, there does not seem to be a difference in terms of the continuity we experience between 300-350 milliseconds, and that which we experience between 990-1010 milliseconds. Similarly, if we experience a bird flying across the sky for 30 seconds, there does not seem to be a difference with regards to continuity throughout the entire 30 second interval. Now, we could notice a difference when we attempt to *look back* and consider aspects of this type of 'long-term' unity. When we do so, we could observe that in some cases we notice *that change happened*, rather than experienced directly.

The continuity of experience over time, beyond the scope of the specious present, is widely recognized (e.g., James 1890a: Ch 9; 1912: 7; Dainton 2006/2000: 129-31, 165; 2017a; O'Shaughnessy 2000: 63; Tye 2003: 85-6)[30], though some proposals (as we shall see below) do not accommodate it. It is plausible that our experience is gaplessly continuous, at least sometimes, for seconds, minutes, and hours, perhaps during the course of entire stretches of wakeful consciousness (Tye 2003: 97-9).

The point to note with regards to Bergson's view is that this continuity is simply that of *durée*, the progressive continuity underlying temporal experience. The continuity which holds beyond the systematic limitations of the scope of our attention is the same which holds within it, and both are explained by *durée*. What needs explanation is the way discontinuity is introduced, and this has been accounted for by our limited attention span. The account of unity over time here, importantly, is one that works with the idea of a progression or unfolding of experience itself (as argued in chapter 3). This

[30] Dainton calls this the 'phenomenal binding principle': "each brief phase of a stream of consciousness is phenomenally bound to the adjacent (co-streamal) phases" (2006/2000: 129).

construes the datum I've just outlined– the uninterrupted, or gapless, continuity in experience over time – in a particular way: as an insight about the structure of experience rather than merely about its contents.

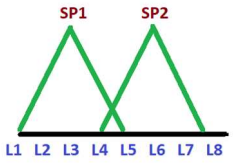
We have, with Bergson's proposal, a solution to the question concerning unity over time which is both theoretically economical and experientially appealing. No new terms were introduced to account for unity over time, beyond those explaining unity at a time – in accordance with the experiential insight concerning the continuity of experience beyond the scope of the specious present. It could be helpful, however, to consider how this account stacks up in relation to four prominent options from the literature, and see whether we have good reasons to prefer an alternative.

A first alternative we can consider has been called the 'discrete block,' or the 'pulse theory' by Dainton (2006/2000: 138-41; 2017a), a view advocated by Sprigge (1983: 9-20) and Whitehead (1929: 25). On this account, the unity over time of experience is explained by the fact that "distinct pulses of experience," (Sprigge 1983: 14), themselves possessing temporal extension, are arranged one after the other, seamlessly.[31] It might seem like this could account for the gapless continuity of experience over time I've been describing. After all, there are no times between specious presents (or "pulses of experience"), which are packed together like beads on a string. There are problems, however. Most importantly, on this view the connections between specious presents is *distinct* from the kind of continuity we experience at a time, in the present. The continuity between discrete "pulses of experience" is different than the kind of continuity we find in them. And this runs against the description of experience I've provided above.[32]

[31] Another instance of the 'pulse theory' can perhaps be found in Renouvier, according to whom "the world … is like an immense pulsation composed of an unassignable (though at all times determinate) number of elementary pulsations" (1864: 43).

[32] See Dainton (2006/2000: 128-30) and Tye (2003: 92) for further relevant discussion.

A second suggestion finds its source in Broad's influential reflections on temporal experience in *Scientific Thought* (1923: 346-51). The proposal incorporates an *act-object* model of awareness, on which distinct specious presents are contents apprehended by unified acts of consciousness. The continuity of experience beyond the specious present is explained by the fact that the contents of these acts of awareness overlap. Take an experience of a bird's flight from L1-L8, which is apprehended by two acts of awareness SP1 and SP2:




If in one present we perceive a bird between positions L1-L5, an adjacent act of apprehension would include the flight of the bird between L4 and L8, and thus overlap with the previously apprehended content of the flight between L4 and L5.[33] We have thus apparently made room for the kind of continuity which was lost within the 'discrete block' model. Nonetheless, it does not seem that shared content is sufficient to account for the seamless continuity we are aiming to bring out. We can enjoy experiences which have shared contents without these experiences involving the type of continuity over time we find in temporal experience (as noted by Tye 2003: 94-5). I can imagine going for a run and then going to see a film, and while doing so also consider going to a film and then catching up with a friend. This would not mean that I am imagining going for a run, then going to the cinema, and then catching up with my friend. The diagram above (for Broad's own version, see Broad 1923: 349) might make the idea attractive, but shared

[33] This simplifies Broad's model, which posits a continuous series of acts of apprehension. Arguably the challenge outlined here nonetheless holds, as these tightly packed "acts of sensing" are taken to be discrete.

contents does not seem, at least straightforwardly, to be capable of sufficiently explaining the experiential continuity we are seeking to accommodate.

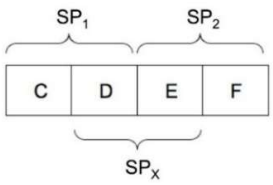
In light of these difficulties, Tye proposes a third account, the 'one experience' view, which aims to account for the 'stream-like' continuity between specious presents. "Each stream of consciousness," Tye writes, "is itself just one temporally extended experience" (2003: 99). And this 'stream' is that of entire phases of wakeful consciousness: "for each period of consciousness, there is only a single experience – an experience that represents everything experienced within that period of consciousness as a whole (the period, that is, between one state of unconsciousness and the next)" (2003: 97).[34] In contrast with the 'discrete block' model, and Broad's 'overlapping contents' view, Tye's position seems to accommodate the insight I brought up above – the fact that experience seems to be gaplessly continuous beyond the specious present, in the same way that it is continuous within it. The 'one experience' view welcomes this idea in the context of a simple account, which does not posit additional entities or relations, beyond those appealed to in explaining the specious present itself.

As we can glean from the above quoted passage, however, the continuity that Tye describes is a feature of the representational content of experience, and not a feature of experience itself. "Continuity, change, and succession," on Tye's view, "are experienced as features of items experienced, not as features of experiences" (2003: 97). As I noted above, and expanded upon in the second and third chapters, it is a phenomenologically robust insight that our temporal experience itself unfolds in time. Unlike Tye's contention, continuity does in fact seem to be a feature of experience. Experience is continuous beyond the specious present in the same way that it is in it, but in contrast with the 'one experience' view change

[34] It is not entirely clear, on the view, what describes the status of specious present as involving a distinct kind of unity. This does not necessarily present an intractable problem, however.

perception does not only involve the experience of continuous content, but also a continuous progression of experience itself. Despite the fact that Tye's view is appealingly parsimonious, and might seem initially to accommodate the similarity between continuity at a time and over time, it vitiates what I designated above as a powerful insight regarding the way temporality is manifested in experience.

A fourth influential proposal regarding unity over time from recent work on temporal consciousness is the Foster-Dainton 'overlap model', presented in Foster's (1979, 1982, 1991) work and developed by Dainton (e.g., 2006/2000, 2008a, 2008b, 2017a). The model is explicitly designed to make room for the seamless transition beyond the confines of the specious present, unavailable in the 'discrete block' and the 'content overlap' views. What the account posits, on Dainton's construal, is that the primitive experiential relationship which holds together phases of a specious present – co-consciousness – also binds the phases of adjacent times. Dainton (2017a) provides the following (simplified) illustration, which shows the overlap $SP_x$ between specious presents $SP_1$ and $SP_2$:




Specious presents, as in Broad's model, overlap. But this overlap does not add any additional experiences or relations beyond those which hold together phases of individual specious presents. Importantly, the overlap need not be described as an overlap of contents (though the view can be elaborated along the lines of Broad's act-object distinction, as noted in Dainton 2017a). The phases of distinct specious presents are bound by the co-consciousness relation, a primitive feature of temporal experience.

As in Tye's 'one experience' view, then, the 'overlap' model provides resources which enable us to give shape to the insight underlined above: the uninterrupted continuity of experience over time, on this

position, is the same type of continuity which we experience at a time. In contrast with Tye, however, the position is a version of the Process View (or the Extensional View), designed to bring out the progression or unfolding of temporal experience itself (e.g., Dainton 2006/2000, 2003, 2008a, 2014, 2016). Continuity both at a time, and over time, pertains not only to experienced contents but also to the structure of experience itself. As I argued above, however (see Chapter 2, section 3), the account does not seem to allow us to fully bring out the idea. To put it briefly, this is because the co-consciousness relation, which is taken to be the relation binding together successive phases, is temporally symmetrical. The symmetrical nature of the co-consciousness relation cannot allow fully working out the idea of experience 'unfolding throughout an interval,' which cashes out that which motivates the Process View and differentiates it from the Retentional alternative.

*

In light of the discussion of four alternative views concerning the long-term temporal continuity of experience, we can designate the view developed above in relation to Bergson's insights as at least a relatively advantageous account of the unity of experience over time. The position, I argued, (i) accommodates the idea of experience being seamlessly continuous over time in the same way in which it is continuous at a time, and (ii) presents a parsimonious description of this type of unity, in that it does not introduce additional terms or relations in order to describe it. Considering only these two ideas, the view is equivalent to Tye's and Dainton's models of unity over time. Unlike the four alternative theories I discussed, however, the account (iii) satisfyingly explains both continuity over time, and at a time, as holding between phases of experience which themselves progress, or unfold through time. On Bergson's view, the continuity presented to us in experience is also a continuity of experience itself.

# 5

# Agential Experience: Creativity and Temporality

*Work on temporal experience suggests that it involves a sense of uninterrupted or continuous 'newness'. The claim is that we have a sense of the present itself being new, something we have not previously encountered. Fiocco, for example, talks of "the phenomenological novelty of each moment, that is, the continuous sense that one has not encountered this state of the world" (2007: 4-5). Bergson frequently emphasizes this idea, writing of an impression of continuous novelty.*

*Is this a pervasive feature of temporal experience? Is it more closely associated with some experiences rather than others? If so, which ones?*

## Introduction

In the preceding chapters of this research, I brought Bergson's thought into a conversation with contemporary research in an attempt to develop a satisfying Process account of temporal experience (Ch 3), a view which motivates the memory theory of change perception (Ch 4), and which cogently explains the unity of conscious experience over time (Ch 4). A final task remains. In the present chapter, I will focus on providing an account of an aspect of temporal experience noted in the third chapter (Ch 3, section 1):

the experience of 'continuous novelty'. I will suggest, following Bergson, that this aspect is paradigmatically found in a sub-class of agential experiences, namely creative agential experiences.

The view of change perception I fleshed out above involves a progression of temporal stages, partially dependent upon that which Bergson terms *durée*. The latter, I showed, is a primitive qualitative property of continuous progression, which is constituted (in part) by primary memory. An additional aspect of temporal experience, which has not been thus far discussed in detail involves the novelty or 'newness' which theorists frequently attach to the experience of time. Bergson writes on many occasions of the experience of continuous novelty (CM 17ff., 39, 107ff.; CE 8ff.; DS 61). More recently, Fiocco underlines an experiential characteristic which is (on his view) explained by becoming as a feature of time's reality:

> Temporal becoming, as stated above, is an indubitable feature of temporal reality; it is whatever metaphysical phenomenon underlies: *(1) the phenomenological novelty of each moment, that is, the continuous sense that one has not encountered this state of the world (despite gross qualitative similarities it may share with many others)* and (2) the fact that successive uses of temporally indexical expressions (such as 'now') are possible and have different referents. (2007: 4-5; italics mine)

It is the first aspect noted in this passage which I bring to the fore in the present context. In what way is the "phenomenological novelty of each moment" manifest to us in temporal experience? Some views from recent literature, including Fiocco's (see also Skow 2009, Paul 2010)[1], can be straightforwardly understood

[1] Paul talks of a 'nowness' quale as a distinct experiential feature. "When we have an experience as of seeing red," for example, "there is more to this experience than just experience as of redness, that is, than just having a red quale. Along with having an experience as of redness, we also have an experience as of the *nowness* of the redness. We also have a nowness quale. In other words, when we have experiences as of redness, these experiences are not just as of redness *simpliciter*. They are experiences as of redness-now" (2010: 342).

as implying that this aspect is a pervasive feature of non-inferential temporal experience. Others (e.g., Callender 2017: Ch 9) argue that it is attached, rather, to our use of language.

The interesting proposal from Bergson contrasts with both options, paradigmatically associating 'continuous novelty' with a specific type of experience. While a number of passages from his works suggest that continuous novelty is a ubiquitous experiential feature,[2] Bergson marks out agential experience as uniquely revelatory in this respect:

> I feel [the impression of novelty] more vividly than ever, before the action I willed and of which I was sole master. If I deliberate before acting, the moments of deliberation present themselves to my consciousness like the successive sketches a painter makes of his picture, each one unique of its kind. (CM 108)

The impression or feeling of novelty, Bergson claims, is pronouncedly manifest in agential experience. And this kind of experience has a distinct temporal character. The moments (e.g., of deliberation[3]) are successively experienced as "unique", akin to the successive sketches of an original painting. While

[2] In 'The Possible and the Real' (CM 107-125), for example, Bergson opens with a vignette of the experience of novelty:

> No matter how I try to imagine in detail what is going to happen to me, still how inadequate, how abstract and stilted is the thing I have imagined in comparison to what actually happens … For example, I am to be present at a gathering; I know what people I shall find there, around what table, in what order, to discuss what problem. But let them come, be seated and chat as I expected, let them say what I was sure they would say: the whole gives me an impression at once novel and unique, as if it were but now designed at one original stroke by the hand of an artist … I agree that the picture has not the artistic value of a Rembrandt or a Velasquez: yet it is just as unexpected and, in this sense, quite as original. (CM 107)

This passage is meant to bring out the idea of pervasive experienced 'newness' to experience (in line with Fiocco's, Skow's, and Paul's accounts). That is, even the most predictable of circumstances (e.g, the gathering Bergson is describing), there is a feeling or impression of something novel. This is suggestive, but could it not be thought to be related to the fact that predictions are inaccurate, i.e., that we simply do not usually foresee in sufficient detail the way things actually play out? As Bergson notes, one might object that the novelty described here is simply tied to registering, or noticing "additional factors" which were not previously anticipated (CM 107). This would mean that such an example would not bring out general characteristics of experience, or temporal experience. The example would be an instance of recognizing that particular things or events are unique, or new. In response, Bergson puts aside the general claim and notes that the experience of novelty is revealed in a pronounced manner in agential experiences (CM 108).

[3] The insight to be discussed in the chapter covers mental as well as bodily actions.

Bergson is also keen to discuss the novelty of the (mental or bodily) action itself and of its effects, the focus here is on novelty as it shows up in the temporal shape of this kind of experience. From 1889's *Time and Free Will* up to Bergson's later writings, we find the contention that 'continuous novelty' can be paradigmatically found in agential experience, that is in experiences which involve intending and executing actions. There is, however, a further distinction to make. Bergson recognizes the plausible idea of there being many agential experiences which do not manifest novelty, and do not share this kind of temporal profile. Continuous novelty can be found more specifically in what one might call creative agential experiences, or creative experiences (Nanay 2014). Appreciating the way a temporal profile of continuous novelty is paradigmatically attached to creative experiences can then perhaps allow us to extend the insight, and to locate it in aspects of experience more broadly.[4] At present, however, I focus on the first move: identifying the way continuous novelty shows up in the temporal contours of creative agential experiences.[5]

I will approach this in two steps. In the first section, I set the stage by arguing for the existence of proprietary agential experiences (following recent work by Kriegel 2015 and Shepard 2016). In the second, I individuate creative agential experiences from other agential phenomenology, and examine their temporal profile.

[4] That is, we first outline salient differences between certain creative agential experiences and other types of experiences with regards to the way novelty shows up in their temporal profile, but we might then also want to consider the broad range of experiences we enjoy as manifesting more nuanced differences of degree between them. See the end of the second section of this chapter for relevant comments.

[5] I put aside the question of whether or not the novelty associated with temporal experience is also part of our common-sensical (inferential) understanding, or of our use of language. See Callender (2017: Ch. 9) for insightful suggestions on this topic.

## **I** Agential Experience: A Non-Reductive View

An eliminative proposal concerning conscious experience of our exercise of agency, implying its non-existence, appears highly implausible. "That we *have* a feeling of effort," James writes,

> can be no doubt. Popular language has sufficiently consecrated the fact by the institution of the word effort, and its synonyms exertion, striving, straining. The difference between a simply passive sensation, and one in which the elements of volition and attention are found, has also been recorded by popular speech in the difference between such verbs as to see and to look; to hear and to listen; to smell and to scent; to feel and to touch. Effort, attention, and volition are, in fact, similar elements of feeling differing all in the same generic manner from its receptive, or simply sensational elements; and forming the active as distinguished from the passive parts of our mental nature. (2008: 83)

There is broad agreement that James is right about this. The experience of ourselves as acting, Bayne notes, is a "robust and readily identifiable phenomenon" (2008: 185; see also Bayne and Pacherie 2007, Bayne 2011, Mylopoulos 2015, Kriegel 2015, Shepard 2016). It seems that we do in fact enjoy a wide range of *agential experiences*, i.e. experiences which involve the initiation and execution of our actions.[6] As I'm considering them here, agential experiences comprise bodily and mental action alike. They include, for example, the moving of the body and its parts, the use of the body to move and interact with other things and beings, deliberating, deciding, and other various mental operations.[7] The question as to *what* kind of phenomenon agential experience is, however, has elicited different answers. Two types of views can be

[6] Though see Bayne (2008: 184-5) for critical discussion of two brands of eliminativism concerning agential experience, from Hume and Korsgaard.

[7] A number of terms have been used to denote what I'm referring to by 'agential experience,' including "agentive awareness" (Mylopoulos 2015, Bayne and Pacherie 2007), "the phenomenology of agency" (Bayne 2008), "the sense of agency" (Gallagher 2000, Blakemore and Frith 2003).

broadly distinguished: (i) a reductive account, on which agential experiences are explained in terms of aspects of mind which are not uniquely attached to the exercise of agency, and (ii) a primitivist proposal, one which takes there to be aspects of experience that show up uniquely in agential states, proprietary aspects of experience associated with the initiation and control of actions (Kriegel 2015: 73). In what follows, I will examine James' reductive proposal, and argue for primitivism, following recent work by Shepard (2016) and Kriegel (2015).

James expounds a reductive view in the seminal 1880 paper 'The Feeling of Effort' and in a chapter on the will from *The Principles of Psychology*.[8] The account can be understood as relying on three elements: (i) the anticipation of sensory stimulation which would arise as a result of the relevant action, (ii) the sensory stimulation which indicate the action's execution ('afferent' sensations), and (iii) a 'fiat' or decision to act which is identified with an act of attention (2008: 86).[9] Examining each of these elements in turn could allow us to critically assess a position which reduces agential experience to sense perception,[10] while also countering an objection recently advanced against James' account by Kriegel (2015) and Mylopoulos and Shepard (forthcoming).

[8] In a recent publication, Dunham (2018) locates some of the sources of James' reflections on agential experience in debates about the nature of agential experience in 19th century French thought. Renouvier's critique of Maine de Biran, Dunham convincingly shows, had decisive influence on James' position as it is articulated in 'The Feeling of Effort' and the chapter on the will in *The Principles of Psychology*. Between 1906 and 1908, however, James seems to have abandoned his earlier reductive account in favour of a primitivist view. Dunham interestingly attributes the shift to James' engagement with Bergson's ideas.

[9] James also considers an additional aspect of agentive experience, "the end felt as actually accomplished" (2008: 86), but this element is not emphasized or discussed at length in his account.

[10] In the course of my discussion of James' view, I will be presenting critical considerations applying generally to accounts which reduce agential experience to aspects of sense perception. But there is another reductive option. One might think that agential experience can be reduced to conscious judgments about our activity. On this view, the agentive experience of lifting a weight, for example, would be explained by my judgement that it is me who is lifting the weight (in addition to various sensations partially constitutive of my experience). But there seems to be an asymmetry essential to agential experiences which is left unaccounted for by this type of account: It seems that I can make judgments about others' activity in the very same way that I can make judgments about my own, but it does not seem to be the case that I can have a sense of others' activity in the same way that I have a sense of my own. Agential experiences do not seem to be symmetrical as the reduction-to-judgements account would entail (Kriegel 2015: 77-8; see also Bayne 2008: 185-7 for a critique of attempts to reduce agential experiences to judgements).

We can commence with the second aspect – the 'afferent' sensations – which are presented first in the 1880 paper. It is a "notorious fact" (2008: 88) about agential experiences, James notes, that they are partially constituted by coarse-grained feedback accompanying our actions, rather than fine-grained "muscular details" (2008: 88). This feedback involves an assemblage or combination of features perceived by sense:

> Our idea, notion, thought, of a movement, what we mean, whenever we speak of the movement, is this … an aggregate of afferent feelings, coming primarily from the contraction of muscles, the stretching of tendons, ligaments and skin, and the rubbing and pressing of joints; and secondarily, from the eye, the ear, the skin, nose or palate, any or all of which may be indirectly affected by the movement as it takes place in another part of the body. The only idea of a movement which we can possess is composed of images of these, its afferent effects. By these differences alone, are movements mentally distinguished from each other, and these differences are sufficient for all the discriminations we can possibly need to make, when we intend one movement rather than another. (2008: 88)

When we attend to that which is involved in our consciousness of effort during the execution of actions we find only a set of feelings or sensations, and these allow us to differentiate one movement from another. As we've seen, In James' account this is only one of three elements, but some - e.g., Dewey (1897) - have thought that this aspect can do all the work of explaining agentive experience, i.e., that agentive experience is reducible to sensory stimulation from the familiar senses.

For a proposal such as Dewey's to work there would arguably have to be a central place for proprioception (the awareness of movements and positions of the body), since we do not see many of our actions. But this appears to be part of James' position, as presented in the aforementioned passage, which talks of the "contraction of muscles". On a proposal which reduces agential experience to sensory feedback the

agential experience of playing a classical guitar, for example, would be explained by the feelings of one's muscles contracting, the tactile feelings of strumming or plucking the strings, seeing the hands moving towards and strumming/plucking the strings, and the sounds immediately produced by the strumming/plucking. This kind of view, however, appears to get something about the temporal order of the agentive experience wrong. As Kriegel notes, on this position

> the phenomenology of doing something should be experienced *after* the doing has been completed, not *during* the doing. For the proprioceptive sensation of muscle contraction cannot occur *before* the muscles have contracted, and indeed must occur quite a bit *after*. Information from the muscles must be detected by receptors, sent to cortex, and processed before a proprioceptive representation of the muscles *having contracted* can form. But the phenomenology of *doing the contracting* of one's muscles takes place *during*, or rather *leading up to*, the muscle contraction (2015: 79)

It does not seem, as Kriegel correctly observes, that we experience our activity only once it is completed or achieved. An account which reduces agential experience to 'afferent' sensations, however, can be bolstered by the first aspect of James' view - the anticipation of sensory stimulation that will arise as a result of the relevant action – which James identifies with the idea of an 'anticipatory image,' a representation of the "sensorial consequences of a movement" (1890b: 501). With this aspect in place, it seems that we are able to address the concern expressed by Kriegel with regards to a view such as Dewey's. Agential experience would not be fully constituted by an aggregate of resultant stimulation, but would also include the (coarse-grained) anticipations preceding the action's execution. James' account, as including both the (i) 'anticipatory image' and the (ii) 'afferent sensations,' accommodates an understanding of agentive phenomenology as a complex, temporally extended process of anticipations and fulfilments.

Seeing that both aspects are in play in James' view can allow us to move aside a worry recently expressed by Kriegel (2015: 79-8) as well as Mylopoulos and Shepard (forthcoming). The three suggest that James' view situates the experience of effort *before* the action is executed or achieved, and is thus wrong about the temporal order of the experience in the same way that Dewey is (though in a diametrically opposed way). But this is not James' suggestion: the anticipatory image, arising[11] before the movement, can be understood as pointing towards its satisfaction in sensory feedback which is manifest during the execution of the action.

In a contemporary context, an account of agential experience based on a complex set of sensory anticipations and fulfilments can be motivated by a prominent neurocomputational model which has been called the 'Comparator Model' of action control. The model posits a number of subpersonal elements working in tandem in order to anticipate results of our actions and to correct movements in the course of their execution: an 'inverse model' which provides motor directions using aim-directed input as well as input from bodily states; a 'forward model' which predicts sensory consequences of movements; and various comparator processes which provide feedback to the 'inverse model,' thus correcting errors and adjusting movements according to the motor commands (Blakemore and Frith 2003).[12] Prinz's (2007) recent account of the sense of agency combines a Jamesian reduction of agentive phenomenology to a set of sensory anticipations and fulfilments with insights from the Comparator Model of action control.[13]

[11] As we shall see shortly, James takes it that the anticipation of sensory consequences directly ensues from an act of attending to an idea or plan of action.

[12] Central findings which have supported the Comparator Model include its ability to analyse delusions of control, e.g. in schizophrenia (Blakemore, Oakley, and Frith 2003).

[13] According to Prinz, agential experience can be explained "by a kind of prediction that the brain makes when we are about to act. If you elect to move your arm, you will be able to anticipate its movement. According to some leading neurobiological theories, when a plan is generated in the premotor cortex, a representation is sent to the somatosensory cortex corresponding to what the bodily senses should perceive when that action is executed. That representation is called a "forward model." A forward model is an anticipatory somatosensory image. When our bodies carry out motor plans, the forward model is compared with the actual changes that take place in our body as we move. The feeling of agency may arise from this matching

To an account which explains the sense of agency by recourse to sensory anticipations and fulfilments, possibly underlined by the subpersonal processes described by the Comparator Model, James would add a third element: the 'fiat,' or act of will, which instigates the action. On the position promulgated by James in 'The Feeling of Effort' and in the 1890 chapter on the will, action commences with attention fastening on to an idea or intention:

> What makes it easy to raise the finger, hard to get out of bed on a cold morning, harder to keep our attention on the insipid image of a procession of sheep when troubled with insomnia, and hardest of all to say No to the temptation of any form of instinctive pleasure which has grown inveterate and habitual? In a word what is the nature of this *fiat* of which we have so often spoken? … I then lay it down as a second corner-stake in our inquiry, that *every representation of a motion awakens the actual motion which is its object*, *unless inhibited by some antagonistic representation simultaneously present to the mind.* (2008: 103-4)

> The essential achievement of the will, in short, when it is most ' voluntary,' is to ATTEND to a difficult object and hold it fast before the mind. The so-doing *is* the *fiat*; and it is a mere physiological incident that when the object is thus attended to, immediate motor consequences should ensue. (1890b: 561-2)

According to this view, the fact that we pursue one course of action rather than another can (sometimes)[14] be explained by our attending exclusively to a "representation of a motion". For example, if I attend to an act of writing – "I will to write" in this sense – "the act follows" (1890b: 560). The movements of the hand,

process. If a match occurs, we feel we are in control. If a match doesn't occur, it's because our bodies didn't move as we predicted they would, and that results in an experience of being passively moved by an external source" (Prinz 2007: 342).

[14] On James' view this act of attention does not always accompany agential experiences (2008: 102; 1890b: 522).

and the relevant set of sensory anticipations and fulfilments, simply ensue as a result of attention to an intention. Volition is "completed when the stable state of the idea is there" (1890b: 560).

James' tripartite proposal, as well as an account of agential experience based only on the first two elements of his view – the set of sensory anticipations and fulfilments – remain highly problematic. It appears to belie the way agentive experience is manifest. If we take up James' view, to the exclusion of the 'fiat,' it tells us that the experience of performing actions is (exhaustively) constituted by anticipatory sensory imagery and 'incoming' stimulation. If we include James' 'fiat' this chain simply flows forth from the fact that we pay attention to a representation of a certain course of action. This lies in tension with the fact that we seem to have an experience of making things come about which is not captured by the three aspects of agential experience underlined by James.[15]

The 'extra' bit can be understood through the concept of 'trying'. The notion can serve to designate a component of experience distinguished from the sensory aspects of movement (bodily and mental alike). It can be understood as a feeling of putting force into action against resistance (Kriegel 2015: 90), or (perhaps better) as a *sui generis* experience of directing effort towards the satisfaction of an intention (Shepard 2016: 420). The attractive suggestion is that 'trying,' signifying an experiential grasp of directing our actions, is the defining feature of agential experiences, marking them out from other aspects of mental life.[16]

[15] Even though the three aspects highlighted in James' account might well be frequently, or usually, involved in our agentive experiences.

[16] One might want to object: we can standardly acknowledge that we *judge* that we are trying, while we can still resist the claim regarding a *feeling* of trying. A possible response is that there seems to be an *asymmetry* in the sense of agency. We experience ourselves putting force intro effect, while we cannot experience others doing so in the same way. Considering 'trying' as reducible to judgments does not seem to bring that asymmetry into view: I can judge I am directing effort towards the satisfaction of an intention in the same way that I judge that another is. See also fn. 10.

To those who might be sceptical regarding the claim of separating the aspect of 'trying' from sensory features (both anticipatory and 'afferent'), two experiments highlighted recently by Shepard can render the idea more persuasive. The two cases (Lansing and Banzett 1993, Gandevia et al. 1993) involved temporary self-paralysis via neuromuscular blocking medications which leave subjects conscious. The patients were asked to perform various tasks during paralysis, and were later questioned about their experiences. The striking result is that subjects reported vivid experiences of trying to direct actions, and described these in a non-sensory way (i.e., as involving the directing of effort itself). No sensory anticipations were reported, and the subjects received no sensory feedback due to the blocking agent.[17] Taking the subjects' reports from these cases seriously indicates that we can isolate an aspect of agentive experience, which is in other circumstances closely associated with various sensory anticipations, effects, and attention to 'representations of motions'.

Cases of 'sleep paralysis,' I'd like to suggest, might also make the idea of proprietary agential experiences appealing. These are more or less rare[18] episodes which occur during falling asleep or waking up, in the course of which subjects are conscious but are not able to successfully move their body. In these cases, it seems, there is an experience of directing effort, of (unsuccessfully) trying to bring actions into effect, which is isolated from sensory anticipations or feedback.[19] That is, there appears to be a *sui generis* sense

[17] "The experiences of trying which were reported by the patients," Shepard notes, "cannot be explained by matches between predicted and actual feedback, since there was no actual feedback. Nor can they be explained by internally simulated feedback, or anticipations of feedback. For such feedback, if centrally involved in the experiences of trying, should produce experiences of the feedback simulated or anticipated. That is, such experiences should be (presumably, sensory) experiences of things happening at the relevant bodily sites. [And yet,] very little sensory experience was reported. The experiences reported were largely directive in nature, concerning the direction of effort to the body parts" (Shepard 2016: 425-6).

[18] Studies suggest that around 30% of individuals will experience at least one episode during their lifetime, whilst a smaller percentage of individuals experience the condition more frequently (Olunu et al. 2018).

[19] There is a wide range of different descriptions of the phenomenon (e.g., sleep paralysis is attached to range of experiences including fears and hallucinations, and there is research suggesting a link to various disorders and conditions). The common core of all descriptions (e.g., Olunu et al. 2018; Sharpless and Barber 2011; Jalal, Taylor, and Hinton 2014) is the feeling of trying unsuccessfully to initiate actions. This is the only relevant experiential datum I'm considering here.

of agency which can be characterized as attempting to bring an intention into effect. In episodes of paralysis (during which we are conscious) 'trying' is experienced apart from sensory features which are normally closely associated with it.[20]

Even if we wish to put aside experiences during cases of sleep paralysis, however, the case for a primitivist account of agential experience - according to which there are experiential aspects uniquely attached to the initiation and direction of action - seems solid.[21]

## **II** Creative Experience and Temporality

In the introduction to this chapter, I noted that Bergson locates the experience of 'continuous novelty,' the "continuous sense that one has not encountered this state of the world" (Fiocco 2007: 4-5) in agential experience. It is pronouncedly, or vividly, felt "before the action willed and of which I was the sole master" (CM 108). Can we attribute the temporal feature of 'newness' to agentive experience broadly considered? Is 'continuous novelty' (partially) constitutive of all of our experiences of directing effort towards the satisfaction of intentions? The answer seems to be negative.

I've noted that the unique aspect of agentive experience can be understood as 'trying' – the manifest effort of rendering an intention, or plan of action, effective. Additional characteristics have been attached to the experience of agency. A number of authors (e.g., Bayne and Levy 2006, Horgan 2007) have stressed an aspect of "self-as-source" phenomenology (Horgan 2007: 8), indicating that movements - bodily and

[20] These cases are experienced as fearful, and it seems that they sometimes involve hallucinations, but the feeling of effort itself seems to be separable from sensory anticipation and feedback.

[21] Bergson does not engage much with the question of whether there are proprietary aspects of agentive experience, though he does note that we have experiences of our activity, and of the conditions in which it is exercised (CM 110). There are also relevant reflections on action and experience in 'Intellectual Effort' (ME 186-230).

mental - are experienced as originating in oneself rather than from an external power. Others have accounted for facets of agentive experience related to action assessment, i.e., to the monitoring and evaluation of actions during their execution (e.g., Proust 2013). There could well be numerous facets attached to the central aspect of 'trying'. But a temporal profile involving 'continuous novelty' does not, in normal circumstances, seem to be one of them. Lifting a chair, clenching a fist, deliberating about the best way to reach the office – these agential experiences arguably involve an aspect of 'trying' associated with various other factors, e.g., action assessment and 'self-as-source' phenomenology, but they do not seem to manifest any sense of continuous 'newness'.

Bergson was on board with this suggestion. He took it that the majority of our agential experiences are given a full description by accounting for the instantiation of the relevant acquired habits and intentions, to which there does not seem to be a good reason to attribute experienced novelty. This idea is emphasized in a passage from the third chapter of *Time and Free Will*, in which Bergson compares the 'majority of our daily actions' to reflex acts:

> In the morning, when the hour strikes at which I am accustomed to rise, I might receive this impression [with the whole soul], as Plato says; I might let it blend with the confused mass of impressions which fill my mind; perhaps in that case it would not determine me to act. But generally this impression, instead of disturbing my whole consciousness like a stone which falls into the water of a pond, merely stirs up an idea which is, so to speak, solidified on the surface, the idea of rising and attending to my usual occupations. This impression and this idea have in the end become tied up with one another, so that the act follows the impression without the self interfering with it. In this instance I am a conscious automaton, and I am so because I have everything to gain by being so. It will be found that the majority of our daily actions are performed in this way and that, owing to the solidification in memory of such and such sensations, feelings,

> or ideas, impressions from the outside call forth movements on our part which, though conscious and even intelligent, have many points of resemblance with reflex acts. (TFW 168)

The description here is arguably overly mechanistic. There is a suppleness to many of our habitual actions which cannot be subsumed under a mechanical explanation, and which does not seem to fall under a conception relevant to reflex acts.[22] But understood at a slightly more abstract level, the relevant point expressed in the passage is compelling: a large part of our daily actions instantiate previously acquired intentions and habits. And there does not seem to be any reason to think that a sense of novelty is attached to these experiences, and thus to agential experiences as such. Our exercises of agency are frequently experienced as unfolding without an impression or feeling of novelty, and without novelty as part of the temporal profile of experience.

Bergson's interesting suggestion is that we should rather locate the experience of novelty in a subclass of agential experiences: creative agential experiences.[23] Think, for example, of formulating or imagining a new path or plan for life, pursuing a transformative experience, composing a song, creatively painting, writing. While not prevalent, these kinds of experiences might not be highly uncommon (Nanay 2014: 20). What distinguishes these activities, considered in terms of the way they are consciously manifest, from others? Two aspects are relevant, in the present context.

The first concerns a suggestion, also echoed in contemporary work (Nanay 2014), to the effect that creative agential experiences involve experiencing something which was not possible beforehand as coming into existence due to our causal intervention.

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[22] See Sinclair's pertinent remarks about the overly mechanistic view of habit emerging from passages in Bergson's early works (2019a: 89-96).

[23] In what follows I am focusing on instances of creativity which are obviously agential, on what Gaut calls "active creativity" rather than "passive creativity". The latter concerns putative cases in which creative ideas 'pop up' in our minds (Gaut 2010: 1043).

In order for us to properly understand the suggestion, a qualification of the idea of possibility in play here is in order. Bergson suggests that we can distinguish two meanings of the term 'possibility'. One way to consider something as possible is to take there to be no obstacle to its realization. In this sense if we say that something is possible we indicate that there is an "absence of hindrance" (CM 121) to its coming about. Lifting a gate, for example, makes the passing of people through a path possible (CM 120-1). Another way to consider a thing or event as possible is to understand it as "[preexistent] in the form of an idea" (CM 121). In this sense, something – a state or event - is possible if prior conditions – states or events - provide an exhaustive account of its causal origins.

Creative experiences, on Bergson's view, are possible in the first sense: they are possible in the sense of there being no obstacle to their realization. But they also involve other aspects which are experienced as bringing about new possibilities, and are thus not antecedently possible in the second sense - creative agential experiences are not exhaustively 'prefigured' in preceding states or events.

The idea of acts involving the creation of new possibilities is, for Bergson, part of a metaphysical proposal - part of an account of the nature of reality. 'The Possible and the Real,' in particular, focuses on the relation between the notions of creativity and possibility, marking out creative acts as ones which bring into existence new possibilities. Bergson's chosen examples of cases in which activities bring into existence new possibilities are works of art, literary and theatrical works in particular. In elaborating the way these works allow us to appreciate instances in which possibilities are created, Bergson reports a conversation with a journalist who questioned him regarding the form which "the great dramatic work of tomorrow" will take (CM 118). Bergson's response to the question, to the interlocutor's surprise, is that these works *are not possible* in any informative sense, and thus he does not possess any insight as to what they would specifically contain. We surely know many things about general features of literary or theatrical works,

features we might want to suppose future works will share, and we can posit various conditions which would make such works possible (in the sense of their being no hindrance to their future creation). We can also trace lines of influence between authors, and suppose that future works would depend in many ways on those already familiar to us. But the future great work of drama or literature, in the sense relevant to the interviewer's question – whatever would single out features which would make that great work the great work that it is – would find its origins (in part) in the writer's creation of its possibility, just as the possibility of great works of the past (Bergson's example is Shakespeare's work) were created (in part) by their writers (CM 118-20). Great literary or dramatic works – and one might also want to add other forms or art (think, e.g., of Van Gogh's, Monet's, or Picasso's paintings) – stand as forceful examples of cases in which artists expanded the domain of the possible.

In the present context, however, I wish to focus on the manifest aspect of creative acts, to the exclusion of the metaphysical point Bergson wishes to make in 'The Possible and the Real'.[24] Though the discussion of creativity is attached to an argument for the *actual creation* of new possibilities, my focus here is on way creative experiences show up, or are part of the phenomenology. The claims I am highlighting, I take it, are consistent with, but involve only part of what Bergson wishes to achieve in his discussion of creativity and possibility.[25]

The considerations regarding creativity and possibility elaborated in 'The Possible and the Real' map onto Bergson's description of the free act in *Time and Free Will*.[26] Experiences of freedom, at least genuine

[24] Bergson's ideas on possibility are discussed in the context of Deleuze's influential take on Bergson's metaphysics (1991; Ch 5 in particular). Building upon Deleuze's interpretation, Moore (2012) develops an illuminating comparison between Bergson's views on possibility and David Lewis' (1986) 'modal realism'. Leibniz's conception of possibility can be understood as a central target of Bergson's suggestions, as recently shown by Vollet (2008).

[25] In *Bergson ou l'humanité créatrice* (2013), Kisukidi presents an impressive reading of Bergson's oeuvre centring on the notion of creativity as it is elaborated in the context of Bergson's account of action, his views on art, and his reflections on politics.

[26] See Sinclair (2019a: Ch 3) for a reading of Bergson's view of freedom which highlights the centrality of the notion of creation.

experiences of free will, are creative agential experiences. They are manifest to us as involving effects the possibility of which finds their source in the agent.[27] Bergson approaches this idea through examples of deliberation and carrying out actions. We might initially assume that (genuinely) free acts can be traced back to causal origins distinct from these acts themselves, that there is a 'path' leading up to a decision and the way it is brought into effect. But while free acts rely on a substratum of habits and prior conditions (CM 111), exercises of agency in these cases are experienced as involving facets which were not possible before, with regards to which the notion of a 'path' leading up to the decision is uninformative (TFW 181-3).[28]

Nanay recently presented an analysis of creative experiences along similar lines (without any reliance on Bergson's ideas).[29] According to Nanay,

> [a]n idea is creative only if the person in whose mind it arises *experiences it* as something she *has* not taken to be possible before … [T]he claim is that it is a necessary feature for creative mental processes that their outcome is experienced in a certain way: that we experience the outcome of the mental process as something we have not taken to be possible before. But what does it mean to say that an experience represents a mental process as something the agent has not taken to be possible before? My answer is simple. At time *t*, the agent considered a number of possibilities. Later, at time *t**, she comes up with a possibility that she experiences as something that is different from all the possibilities she considered at time *t*. (2014: 23)

[27] Bergson's account of the experience of freedom, his defence of free will, and his argument against a deterministic account of action, do not lie within the scope of this chapter. I am focusing solely on the features of free acts insofar as they are creative agential experiences.

[28] The view I'm elaborating here can be seen as neutral on the question of whether possibility in the first sense discussed above - lack of hindrance - figures in the content of experience.

[29] Nanay's discussion of creative experiences, and the definition presented in this paragraph in particular, builds upon Boden's (1992, 2001) influential work on creativity.

The claim here, it is important to emphasize, is about the way the experience is manifest – the fact that we experience creative mental processes as involving new possibilities. Creative agential experiences involve experiencing an expansion of the set of the possible. We should keep in mind, within the present context, (the possibility) that creative experiences might *misrepresent* these possibilities as new.

I noted above that there are two aspects relevant for the distinction between creative agential experiences and agential experiences broadly considered. The second aspect has to do with the fact that the exercise of creative agency also shows up in a "certain shade of the quality of action itself" (TFW 182), and specifically in the *temporal character* of the act. In instances of creative agency, according to Bergson, "a dynamic series [série dynamique] of states is formed, which permeate one another, and lead by a natural evolution [une évolution naturelle] to a free act" (TFW 171). The development, or 'evolution', of the act is manifest as a "constant state of becoming [continuel devenir]" (TFW 183), drawn out successively "whilst progressing" (TFW 190). There is, at least in some creative acts (e.g., making a transformative decision, articulating ideas for research, composing a song), a kind of 'maturation' or 'ripening' of an idea or intention as it is brought into effect,[30] a maturation in which novelty shows up as part of the temporal shape of the experience.[31]

This conception of creative agential experiences allows us to identify the paradigmatic conditions in which we experience 'continuous novelty'. In these cases we finds moments which are "like the successive sketches a painter makes of his picture, each unique of its kind" (CM 108). We experience ourselves as bringing into existence new possibilities, and we experience the expansion of the set of the possible as a

[30] Bergson's views do not imply a notion of creation *ex nihilo*, but rather an idea of the creation of possibilities which develop and expand those which already exist. Van Gogh's use of colour in his compositions, for example, can be seen as building upon the possibilities afforded by existing techniques, while expanding that which is possible to achieve with the use of a colour palette.

[31] Nanay's (2014) account does not have this temporal element.

'maturation' which comes about due to our intervention.[32] The suggestion from Bergson, then, is that (i) there are cases in which we experience ourselves as expanding the set of the possible, and (ii) in (at least in some of) them novelty is manifest in the temporal contours of experience. Both of these aspects mark distinctions between creative agential experiences and other experiences involving the exercise of agency.[33]

The suggestion here with regards to the source of our experience of 'continuous novelty' can be contrasted with views (e.g., Fiocco 2007; Paul 2010; Skow 2009) which take this feature to be ubiquitously present in experience. It also contrasts with a position - e.g., Callender 2017 - which understands this feature as originating in aspects of our use of indexicals in language. The Bergsonian suggestion, however, leaves open the possibility that an account such as Callender's partially explains our *conception* of time as involving 'continuous novelty'.

*

An objection can be brought up against the claim I've been making in the second section of this chapter: could we not attribute the feature of 'continuous novelty' to experiences involving novelty more generally, and not only to creative agential experiences? It might seem that hearing a new song, e.g., as surprising and interesting could also have the kind of temporal features I've highlighted in relation to creative

[32] One might be curious about the time-scale to which the view applies. One thing which can be suggested, in the present context, is that the view need not be seen as applying to non-inferential perceptual experience. The proposal can be understood, rather, as an insight concerning non-inferential exercises of agency. We experience our agency (at least partially) without the mediation of judgments and hypotheses, but this can be taken to be as an insight relevant to a time-scale (significantly) broader than that of the 'specious present'.

[33] Further work would have to be done in order for us to take up Bergson's suggestions as an attractive and fully-developed account of creative agential experiences. Such work would include more fine-grained discussion of the phenomenology, in relation to a more ample pool of sample cases, as well as engagement with some pressing questions. One such question is: why does it sometimes feel that creative acts come to one 'from the outside'? (Nanay 2014: 27). Bergson's ideas concerning a 'retrospective illusion' which is attached to creative acts (e.g., CM 118ff.) seem to provide resources to begin answering this question.

experiences. One can admit that creative agential experiences are distinct from other agential experiences, also with regards to their temporal profile, but can still be concerned with that which distinguishes other experiences of novelty from creative experiences.

One possible way to respond to this objection is to note a distinction between the directness or *immediacy* of the impression of novelty in creative agential experiences, on the one hand, and the *mediate* or inferential impression of novelty afforded by experiences of novelty broadly considered, on the other. When we listen, e.g., to a musical piece which seems to expand the set of that which we thought was possible, novelty can be understood as showing up in the form of a judgment or assessment to the effect that the song is novel, or that parts of it involve striking novelty. In the case of creative agential experiences, by contrast, novelty can be taken as manifest immediately. That is, we experience the emergence of possibilities as showing up in the character of the act itself as it unfolds through time, apart from judgments we make about its nature or content (judgments which we can equally make about others' actions, and the effects of their actions).

Another way to respond to the objection would involve being open to the idea of there being a closer link than I've just suggested between creative experiences and other instances of novelty. Novelty can be taken as showing up (non-inferentially) as a temporal feature of experiences, at least in some instances, apart from the exercise of (creative) agency. But we can consider the latter as offering us a more pronounced or vivid appreciation of novelty as a temporal feature. On this response, we are considering there to be a range of cases, apart from creative experiences, which are revelatory of continuous novelty, with instances of creative agency playing a paradigmatic role. For present purposes, we can leave open the question as to which response we would want to take up.

## Conclusion

In the third and fourth chapters, I developed an account of central features of Bergson's conception of change perception, presenting it as a cogent version of the Process View, as appealingly accommodating a constitutive connection between (primary) memory and the immediate experience of temporal properties, and as offering a parsimonious and phenomenologically attractive account of the temporal unity of experience over time. The account I developed therein, however, was silent on the relation of activity to our experience of time. It could have seemed that I've neglected the fact that Bergson's *durée*, as Merleau-Ponty puts it, is "not simply change, becoming, mobility; it is being in the vital, active sense of the term" (Merleau-Ponty 1964: 184). This chapter opened a window into an inquiry concerning the relation between the experience of time and agency. In creative agential experiences, according to Bergson, we paradigmatically experience novelty as built into the temporal structure of experience.

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