

Flow and presentness in experience

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Abstract

In the contemporary landscape about temporal experience, debates concerning the “hard question” of the experience of the flow—as opposed to debates concerning more qualitative aspects of temporality, such as change, movement, succession and duration—are gaining more and more attention. The overall dialectics can be thought of in terms of a debate between the realists (who take the phenomenology of the flow of time seriously, and propose various account of it) and deflationists (who take our description of temporal phenomenology as “flowy” to be spurious, and propose various explanation of this spuriousness). In this paper we look inside the realist side. We distinguish primitivist realism, according to which the feeling of time flowing is an irreducible *sui generis* phenomenology, and various forms of reductionist realism, according to which the experience of the flow is ultimately explainable in terms of a more basic phenomenology. We present reasons to be sceptical against the various reductionist proposals. The conclusion is thus disjunctive: either primitivism or deflationism is the correct account of the purported experience of the flow of time.

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1 | PHENO-FLOW REALISM, PHENO-TEMPORAL REALISM, AND PHENO-FLOW PRIMITIVISM

Although it is obvious that there is a difference between our experience of time and our experience of space, it is not trivial to provide an account of what exactly this difference is. Some think that the difference is at the bottom perceptual. Our perceptual experience of time is *dynamic* in a sense in which our perceptual experience of space is not. In seeing the spatial arrangement of the shelves in the library in front of us, we have no impression that there is something to space over and above this spatial arrangement. Our perception of space is *exhausted* by our perception of the spatial relations among those objects. In observing a frog hopping on the grass towards a pond, however, the temporal aspects of our perceptual experience are not exhausted by the perception that the hops happen one after another. Our perceptual experience of succession is accompanied by the sense of a constant flow of time. Other philosophers do not believe that this difference is essentially perceptual. They agree that there is a sense of passage specific to temporal experience, but they think that it is a feature of conscious experience *in general*, or that it is the product of factors that are not merely perceptual. Let us call the thesis that the difference between the spatial aspect and the temporal aspect of our experience (perceptual or otherwise) is a sense of time flowing or passing, *pheno-flow realism*, and use *narrow pheno-flow realism* as the thesis that the dynamic character is part of the content of our perceptual experiences of time, but not of space, and *wide pheno-flow realism* as the thesis according to which temporal experience has a specific dynamic character that is not due merely to perceptual factors.

Pheno-flow realism, in both its versions, has a noble tradition; here are four relatively recent examples:

There is hardly any experience that seems more persistently, or immediately given to us than the relentless flow of time. (Schlesinger, 1991: 427)

I find it impossible to relinquish the sensation of a flowing time and a moving present moment. (Davies 1995: 275)

...We are not only aware of [the passage of time] when we reflect on our memories of what has happened. We just see time passing in front of us [...]. (Le Poidevin 2007: 76)

Without [transience], time would be just another dimension like those of space [...]. It is the phenomenology of experienced time that is of interest here, and it would be perverse to deny that transience is one of its essential features. (Galton 2011: 702)

The debate on pheno-flow realism is strictly connected to the debate on metaphysical realism of the flow of time, through various “arguments from experience.”¹ In this paper, we will not discuss this connection, but assume that pheno-flow realism is compatible with very different temporal metaphysics, in particular, it is compatible with both realist stances toward the flow of time (e.g. many forms of presentism, A-theoretic eternalism, and growing block) and anti-realist ones (such as

¹See Baron et al. (2015), Skow (2015: Chap. 11–12). Those arguments have been debunked in many ways, for instance by Paul (2010), Skow (2011), Frischhut (2015), Deng (2017), Spolaore and Torrenzo (2019), and Farr (2020). For a recent defence of the idea that experience favours metaphysical realism, see Baron (2017).

the block universe view). However, in discussing what we call the pure update view in Section 5, it will become relevant which metaphysical theory one assumes.

More relevant for our paper is the distinction between pheno-flow realism and *pheno-temporal realism*, the thesis that there is a specific phenomenology that characterises our perception of change, movement, succession, and persistence (cf., Dainton 2000, 2017). Pheno-temporal realism is a thesis about the ingredient that marks a difference between those perceptual experiences of change that we usually take to be genuine (as when one *sees* the hand clock of a watch moving), and whose phenomenology we distinguish from that of experiences that involve change, but cannot be characterised as perceptions of change (as when one *notices* that the hour hand of the clock has moved). If it is true, then our perceptual experience of change is not exhausted by having successive momentary experiences. Although the thesis of narrow pheno-flow realism and the thesis of pheno-temporal realism are distinct, there may be connections between the two. For instance, one may argue for one of those two theses: (i) the experience of flow requires perception of change and movement and (ii) perception of change and movement requires the experience of flow. More on this in Section 2 below.

Pheno-flow primitivism is the conjunction of pheno-flow realism with the thesis that the dynamic ingredient of the temporal aspect of our experience is primitive, in the sense that it neither can be identified with something that can reasonably be described through a qualitatively distinct property (or properties) nor can be explained in terms of such a property (or properties). According to primitivism, the phenomenology of flow is a specific aspect of our temporal experience which is *over and above* awareness of temporal relations, and which characterises in an intimate way our perceptual experience (if narrow pheno-flow realism is true), or more generally our phenomenal life (if wide pheno-flow realism is true). Even though the quotes above do not explicitly entail primitivism, many realists seem to be at least sympathetic towards it, as hints at the ineffable or difficult-to-pin-down character of the experience of flow suggests.²

In Section 2, we will spell with some detail the alternatives to pheno-flow primitivism, namely *pheno-flow deflationism* and *pheno-flow reductionism*, respectively. In Section 3, we will develop our main line of criticism against that version of pheno-flow reductionism we call *narrow temporal distributionism*. We will show that narrow temporal distributionism comes in two varieties: inflationary temporal distributionism and deflationary temporal distributionism. These proposals will be assessed and criticised. In Section 4, analogous criticisms will be applied to *wide temporal distributionism*, a version of distributionism that encompasses also non-perceptual aspects of experience. Finally, in Section 5, we tackle a further form of reductionism, the *pure update view*. Our conclusion (Section 5) will be disjunctive: the falsity of reductionism entails that the only viable options are either pheno-flow deflationism or pheno-flow primitivism.

2 | PHENO-FLOW DEFLATIONISM AND PHENO-FLOW REDUCTIONISM

What are the alternatives to pheno-flow primitivism? Convincing as the quotes above may be, many scholars argue that our perceptual experience does *not* present us with the flow of time. We call this position *pheno-flow deflationism*. According to it, we systematically come

²Smith (1988), Balashov (2005), Dainton (2011a, 2011b), and Torrenco (2017) are examples of primitivism.

to *falsely* believe that experience *seems* as if it presents us with the flow of time (cf. Miller 2019). When we describe our experiences in this way, we are either misdescribing them (for instance, because we take some other aspects of our phenomenology for the sensation of flow, cf. Hoerl 2014) or because we subconsciously infer from our independently generated belief that time passes that our experience seems to us in a certain way (cf. Miller et al. 2019). Even more radically, deflationists cast suspicion upon the idea that everybody believes that they themselves have an experience of the flow of time (cf. Braddon-Mitchell 2013: 213, 221, Latham et al. 2020, Shardow et al. 2020), or that our naive theory of time suggests it is (cf. Latham et al. 2019). For the purpose of this paper, deflationism remains an open option, as in general the negation of pheno-flow realism.

Another option is to accept pheno-flow realism, in either its narrow or wide form, but to deny that the flow experience is irreducible and primitive. We call this option *pheno-flow reductionism*, and it is going to be the main polemic target of what follows. According to the pheno-flow reductionist, our experience has as content³ certain properties, distinctive of time, and it is possible to *give an account of* the sense of flow in virtue of (our experience of) those properties. The difference between non-reductionist proposals should be clear. Primitivism accepts the sense of flow but denies that it can be further explained in virtue of other properties in the experience's content. Primitivists can of course say that our *sui generis* experience is connected to a naive belief in the passage of time. They can also agree with reductionists that this belief (often at least) takes the form of a belief in an objective present changing or moving. However, Primitivists could *not* say that the content of their experience of passage is that of a moving or changing present (if they say so, then they are reductionist, in our sense). Deflationism denies that experience presents any property that is “distinctive” of time. According to a deflationist proposal, whatever generates the belief (if any) that time passes is a represented property of ordinary objects (such as undergoing a change or a movement), and this represented property is misdescribed as the representation of time-passage.

Reductionism comes in distinct varieties. Some are forms of reduction by identity and are very close to deflationism. For instance, Deng (2019) argues that our experience of the passage of time is nothing over and above our perceptual experience of succession. Experiencing temporal relations—i.e., that something comes before or after something else, or that has a certain duration—*is* experiencing the passage of time. This form of reductionism superficially appears to vindicate narrow pheno-flow realism (rather than wide pheno-flow realism), but actually entails that narrow pheno-flow realism, as we formulated it, is false—since it entails that the temporal aspect of our experience *is* exhausted by our experiences of temporal relations. For this reason, this form of reductionism by identity counts as a form of pheno-flow deflationism for the purpose of this paper and will not be touched by our arguments.

A similar case is the identification of the experience of flow with the perception of continuous change. If a reductionist of this sort endorses also pheno-temporal realism, the thesis that perceiving change comes with a distinctive phenomenology (as opposed to mere inferring, on the ground of what we remember, that change has occurred), she can identify the experience of flow with this distinctive phenomenology. Given our definition of narrow pheno-flow realism, the reduction of the perception of the flow of time to the perception of change counts either as a form of pheno-flow deflationism (if perceiving change is interpreted as perceiving the temporal relations structuring change itself), or as a primitivism (if

³We use the phrase “to have as content” as a placeholder for both the representationalist positions (e.g. Siegel 2010) and naive realist ones (e.g. Campbell 2002).

perceiving change is interpreted as involving also the perception of a dynamic element over and above the temporal relations).⁴

Similar considerations apply to those theories that identify the sense of flow with the awareness that our own experiences constantly change.⁵ These theories only superficially appear to vindicate wide pheno-flow realism, but actually are a form of deflationist theories in our terminology. The experience of our own experiences changing, in and of itself, is not trivially identical to a purported phenomenology of the passage of time, even if such a phenomenology is not purely perceptual. A more charitable reading is that the theory entails that we mistake our generic awareness that our experiences change over time for a purported phenomenology of experiencing a change in what is present, and this latter phenomenology *is* the phenomenology of the passage of time; but then the position is hardly distinguishable from a form of deflationism, according to which there is no specific phenomenology of passage. In order for theories of this sort to be *reductive* theories of the phenomenology of passage (and not forms of deflationism), it is necessary explanatory machinery *bridging* our awareness of a change in our experience with the awareness of the change of which moment is present. We will discuss a proposal along those lines in Section 5, when we tackle the pure update view.

In the rest of the paper, we will focus only on forms of reductionism that do not identify the experience as of passage with some other *general* aspect of our temporal experience, such as the perceptual phenomenology of change, but rather takes the experience of flow to obtain in virtue of the obtainment of a *specific* experience of change, that is *experiencing a change in what is present*.⁶ For reasons that will become apparent in the next session, we call such a form of reductionism *temporal distributionism*.

3 | NARROW TEMPORAL DISTRIBUTIONISM

The idea behind temporal distributionism is that we experience the flow of time in virtue of being aware of a change in what is present. For ease of exposition, we begin with arguing against what we call *narrow* temporal distributionism, that is, the version that assumes narrow pheno-flow realism in the background. Subsequently, we will argue that even if the awareness of a change in what is present is not perceptual in nature, analogous arguments apply. Therefore, both *narrow* and *wide* temporal distributionism suffer from the same difficulties. Two orders of preliminary clarifications are in place. Firstly, we need to come back

⁴Among these forms of reductionism, Farr (2020) defends a position that entails the falsity of pheno-flow realism, while Paul (2010) and Prosser (2016) seem each to embrace pheno-flow realism, but deny the irreducible character of the flow experience. In a similar vein, Benovsky, 2015:4 maintains that “[...] we actually never experience the flow or passage of time directly, we ‘only’ experience it by having experience of succession and change”. (it. in the text).

⁵O’Shaughnessy (2000: 61–63) seems to hold a theory of this kind (but see section V); and possibly also the theory elaborated in Mellor (1998) falls in this category.

⁶Note that reductionism so characterised presupposes, or at least suggests, that the belief that time passes in the form of a “naive A-theory”. As a useful referee has pointed out, there are versions of realism—such as Maudlin 2007, Savitt 2002, and Leininger 2021—according to which the passage of time is not to be identified with a change in what is present. Indeed, as Latham et al. (2020) has made it clear, empirical evidence suggests that a pre-theoretical belief in some form of A-theory is not as universal as philosophers have assumed. However, dialectically here we are conceding to the reductionist that their position may have an explanatory advantage over primitivism and deflationism. As we will see, our criticism goes deeper to the root of the view, as we argue that it is not possible to have an experience of the kind they assume we do.

to pheno-temporal realism and anti-realism and be clearer about the role of the temporal structure of perceptual contents in the distinction. Among the realists, the *specious present* theorists argue that only temporally extended perceptual contents can deliver the phenomenology of change (cf. Hoerl 2009; Soteriou 2013), while *dynamic snapshot* theorists argue that instantaneous perceptual contents can deliver the phenomenology of change (cf. Arstila (2018; Prosser 2016; Le Poidevin 2007). On the anti-realist side, the defenders of the *cinematic view* argue that perceptual contents are instantaneous, but *insufficient* per se to deliver the phenomenology of change (cf. Chuard's 2011).

Secondly, we need to distinguish the *phenomenal present* from the *represented present*.⁷ The phenomenal present is the temporal width of the content of perception. It is punctuated for the cinematic theorists and the dynamic snapshot theorists, while extended for the specious present theorists. When in need of disambiguation, we will write “present_p” to refer to the phenomenal present, and talk of what is “presented_p” to us to refer to what is contained in it. The represented present is the moment that is *felt as privileged* within the content of perception. With “moment” we mean the event or state of affairs that is spatially maximal relative to my perceptual field(s) at a given time. A moment is thus a concrete entity (an event or state of affairs) that is spatiotemporally located, and not a bare temporal location. When in need of disambiguation, we will write “present_R” to refer to the represented present. A reductionist who accepts the distinction⁸ can argue that the experience of flow is (explained in terms of) the perceptual experience of being presented_p with the present_R as changing. This is the position we call (narrow) temporal distributionism.⁹

There are two core theses involved in (narrow) temporal distributionism: *Privilege* and *Distribution*. The first is that we are presented_p with one moment that is felt as privileged—i.e., the present_R. If the present_p is temporally unextended, then we are presented *only* with the present_R, if it is temporally extended, then we are presented with the present_R and the interval just before or around it. (That is, Privilege is compatible with being presented_p with *more* than the present_R.)

(Privilege) My perceptual experience presents_p me with one moment that is felt as privileged (the present_R)¹⁰

⁷The distinction is analogous to that between the experiential present and the temporal present respectively in Valberg (1992).

⁸The distinction has been disputed by many. Roughly, there are two ways to dispute this distinction. Either by claiming that there is no sense of privilege in the first place (let's call this *eliminativism* about the represented present), or by claiming that the represented present must be conflated with the phenomenal present (let's call this the *conflation view*). Mellor (1981: 26), Callender (2008), Braddon-Mitchell (2013), Hoerl (2018) and Cameron (2015) may be considered eliminativists about the sense of privilege. Hestevold (1990), Dainton (2000), Paul (2010), Lee (2014), Skow (2015: 192), Solomyak (2019: 250) discuss the conflation view.

⁹Traditionally, such a position has been maintained (often implicitly) by A-theorists. Here is for instance Gale commenting on C.D. Broad: “The apprehended content [of perception] displays a continuous shift in its degree of presentedness or liveliness, from a maximum degree of presentedness at the instant of our perceptual act to a minimum degree of this quality at the past instant at which the span of the perceptual present ends.” (Gale 1968: 293). See also Smith (1988), and Craig (2000: Chap. 5). But see also Savitt, who criticises the A-theory but holds that “it seems manifest in our [perceptual] experience that time flows—from the past, to the present moment, and into the future.” Savitt (1996: 348). For more recent formulations of the idea see references in Sections 3.1.1 and 3.2.2.

¹⁰One may argue against distributionism by arguing against Privilege. Bradford Skow (2011, 2015), for instance, follows such a strategy and his arguments aim to dismantle the plausibility of Privilege. We are sympathetic towards his analysis. However, our argument goes further: we claim that even if one assumes that Privilege is true, distributionism is an untenable position.

The second core thesis, *Distribution*, is that perceptual awareness is not just of what is felt as privileged, but also of how the felt privilege distributes through time, namely how it changes its temporal location.

(Distribution) My perceptual experience presents_p me with a change in what is felt as privileged (the present_R)¹¹

The question is how we can be presented with a *change* in what is felt as privileged, given that it is plausible to assume that at most one (possibly improper) part of the phenomenal present is felt as privileged. A natural thought is that we should model the experience of change that constitutes the “reduction base” of the distributionist on pheno-temporal realism and the case of experiencing ordinary motion or change in the environment around us.

Let us consider the specious present approach first.¹² When perceiving a ball rolling down a slope from location l_1 to location l_3 , the interval with which we are presented contains the *distribution through time* of the *spatial locations* of the ball: the ball passes from being at l_1 to being at l_2 to being at l_3 . We can have a tenseless and a tensed version of this extended content, as in the slightly more regimented versions below (where b stands for the ball, $<$ is the relation of temporal precedence, and WAS, NOW, and WILL are tense operators).¹³

(Tenseless content) [b is at $l_1 < b$ is at $l_2 < b$ is at l_3]

(Tensed content) [WAS(b is at l_1) & NOW(b is at l_2) & WILL(b is at l_3)]

According to pheno-temporal realism, experiences with contents like the one above present_p us with the distribution through the time of the temporal locations of the ball—a distinctively dynamic experience of movement. How can one adapt this explanation to pheno-flow realism? According to the strategy of narrow temporal distributionism, perceptual experience presents_p us with an *extended interval of time* in which a change in what is felt as privileged (the present_R) happens. That is, the phenomenal present contains the *distribution through time* of the *temporal locations* of the present_R, which in metaphorical terms can be described as the “movement” of the present.

To make precise the metaphor of the movement of the present, we have to specify what exactly is supposed to be felt as privileged in our experience of the flow of time, and how exactly we understand the perceived change that is involved in it. There are two ways in which change can be said to happen. There is change when the same role is played at different times by different entities, as when we say that the Prime Minister has changed (meaning that there

¹¹Privilege and Distribution are reminiscent of Present and Change, respectively, in Leininger (2015), by which she describes a prototypical A-theory. This is not surprising since we have characterised reductionism as assuming implicitly that our experience gives rise to a belief in the passage of time in terms of a naive A-theory (see footnote 6). The difference between Privilege and Distribution and Leininger's Present and Change is that our theses are phenomenological rather than metaphysical theses.

¹²We will discuss the dynamic snapshot option in Section 3.2.

¹³We are here exploiting a *retentionalist* specious present model with not only retention but also anticipation, hence the operator “WILL.” We are doing so for ease of exposition, but our argumentations hold, *mutatis mutandis*, if we have a version with only retention, or an extensionalist version (and of course the fact that it has 3 parts rather than 2 or more than 3 is immaterial to our argument.)

is another person who now is Prime Minister), and there is change when the same thing has different properties at different times, as when we say that an apple has changed colour. Roughly in correspondence with those two meanings of change, there are two options to carry out the reductionist project, for each version of the content. The first version, *inflationary temporal distributionism*, corresponds to a change in what plays the role of the present_R. According to it, we experience the flow by being presented_p with a moment that passes from not playing the role of the present_R to playing it (or vice versa). The core principle of the position (in its narrow reading) is thus the following:

(Inflationary distribution) My perceptual experience presents_p me with a change in the moment that is felt as privileged (the present_R)

The second version, *deflationary temporal distributionism*, corresponds to a temporal displacement of the entity that plays the role of the present_R. According to it, we experience the flow by being aware of the present_R passing from not being located at a certain time to being located there. The core principle of the position (in its narrow reading) is thus the following:

(Deflationary distribution) My perceptual experience presents_p me with a change in the temporal location of the present_R

In the rest of Section 3, we will present arguments against various forms of inflationary and deflationary temporal distributionism in its narrow understanding. In Section 4, we will explain how to expand those arguments against wide temporal distributionism.

3.1 | Inflationary temporal distributionism

The core of our criticism of the inflationary idea that experiencing the flow of time is experiencing a change in what is felt as privileged is that inflationary distribution is a self-defeating claim. Such a change *cannot* be presented in the content of perceptual awareness. Roughly, we can *think of* the present as “moving” along the temporal dimension, on the ground of the fact that our perceptual experiences happen in succession, each presenting to us something as phenomenally privileged in some sense. However, we cannot have a perceptual experience as of a change in what is present_R as we can have perceptual awareness as of ordinary change and movement, and temporal relations and durations—assuming the specious present hypothesis is correct. We can just *compare* the present perceptual experience with what we remember we have perceived (or anticipate we will perceive) and infer that the present has changed (or will change). A bit more formally, our argument hinges on the following three premises.¹⁴

¹⁴This line of reasoning is similar to that of Frischhut (2017). However, there are important differences between her approach and ours. Firstly, and foremost, she is interested only in the experience of a presentist reality, as it is clear from the title. Our argument is more general, since it reaches the conclusion that within a specious present there is no change of the present_R, without assuming any specific metaphysics of time (hence, our argument works independently from the assumption of presentism). Secondly, and relatedly, when she speaks explicitly about tenses in a way reminiscent of inflationist distributionism (2017: 255), she claims that the problem is that both B-theoretical facts and A-theoretical facts are able to make our perceptual contents veridical. This is correct but, again our point is more general, since it shows that neither veridical nor false contents of the moving present are possible.

1. If my perceptual experience presents_p with a change in the moment that is felt as privileged (the present_R), then my perceptual experience helps to acquire the information that the location of the present_R has changed.
2. If my perceptual experience helps to acquire the information that the location of the present_R has changed, then my perceptual experience itself changes.
3. If my perceptual experience itself changes, then we are not presented_p with the change in which moment is felt as privileged.

The antecedent of (1) is inflationary distributionism in its narrow reading. If we assume it, we end up with the consequent of (3), which is its negation. The argument is valid, if it is also sound it shows that narrow inflationary distributionism is untenable.

Premise (1) states that if we assume that something is presented in the phenomenal present, then we can say more generally that perceptual experience helps us to acquire information about it. Perception helps us acquire information in many ways. For example, it helps us to acquire information about motion through what we have called genuine perceptions of motions, as in seeing the second hand moving, but also by supporting inferences, as when we see that the hour hand is in a certain position, remember that it was in a different position, and come to believe that it moved. Hence, if perceptual experience presents_p with a change in the moment that is felt as privileged, it follows that it helps us to acquire the information about such a change.¹⁵

To understand why the two premises (2) and (3) hold, recall that our experiences happen in time along with what they present_p to us. *How* they happen in time, whether by being themselves extended in time (as in the *extensionalist* model of the specious present) or by being punctual, but possessing temporally extended contents (as in the *retentionalist* model of the specious present) is not of paramount importance here. We will assume retentionalism for ease of exposition¹⁶. Given retentionalism, we can have at a time t_2 an experience e_2 with a content that extends from t_1 to t_3 , and that presents_p us with the movement of a ball from location l_1 to l_3 , and with the moment t_2 as the present_R. The location of the ball within the phenomenal present is presented as changing.

Premise (2) can be defended by noticing that there is *no (relevant) analogy* between our perceptual experience of the rolling ball and the experience of change in what moment is felt as privileged. Extended contents can present us with change and movement because they can present us with the *same persisting entity* as being in different ways at *different* times. But moments are not persisting entities. Content that presents us with movement or change, presents us with a persisting entity, such as an apple or a person, as it is at different times. A moment is a *temporally located* event, and thus it cannot be presented as it is at different times in the

¹⁵Some may complain that being aware of a change in the moment that plays the role of the present_R is not being aware of a change in the location of the present, but a change in what plays the role of having that location. But this line of reasoning does not take into account that the present_p is a succession of temporal positions, so if experience presents us with a change in what position play the role of the present_R (i.e., it is felt as privileged), then it helps us acquire information about a change in position of the present_R.

¹⁶Dainton (2017) makes a distinction between *Modal Retentionalism*, in which the temporal locations (“past, present, and future”) of the objects are manifest in experience, and *Amodal Retentionalism*, in which this is not true. According to Dainton’s picture, Jan Almäng (2014) is an example of *modal retentionalist* and Geoffrey Lee (2014) is an example of *amodal retentionalist*. For the sake of exposition, we assume Modal Retentionalism when assessing inflationary distributionism, and Amodal Retentionalism when assessing deflationary distributionism. We believe nothing crucial hinges on such a simplification.

same sense in which the apple or the person can be. This motivates the claim that if our perceptual experience helps us to obtain information about a change in what is felt as privileged, it is in virtue of moving from one experience to another. No specious present can present_p the same moment t *twice over*, another experience is necessary to present t again to the subject. Indeed, only a succession of (possibly overlapping) experiences each presenting_p us with intervals encompassing t can contain the *same* moment t as changing from being privileged to non-being privileged (or vice versa).

Premise (3) can be defended on the grounds that only presentation within *one* phenomenal present can deliver perceptual awareness of movement or change. But perceptual experience can help us to acquire the information that there has been a change in which moment has a privileged status only through a *comparison* of two or more phenomenal presents. Hence if the experience itself has to change to help us to acquire information about the change in what moment is present_R, this information cannot be acquired through presentation_p.

This line of thought can be applied both to forms of inflationary distributionism that take specious presents with tenseless content as the starting point and to those that take specious presents with tensed content as the starting point. The following discussion will clarify more how our idea works in both cases.

3.1.1 | Inflationary from tenseless content

Consider an experience e_2 with *tenseless* content. e_2 presents us with a ball b moving from location l_1 to location l_3 , and with the moment t_2 (namely the event of b being at l_2), as being felt as privileged (represented here with underlining):

$$e_2 \left[\text{bis at } l_1 < \underline{\text{bis at } l_2} < \text{bis at } l_3 \right]$$

To have an experience of flow, the tenseless content¹⁷ should present us with a succession in which a certain moment t_2 is not being felt as privileged before t_2 is felt as privileged (and after it is again not felt as privileged). In other words, the content of e_2 (as of any other specious present) should contain the change in the distribution of the property of *being felt as privileged* through the interval that is phenomenally present. But this is impossible because in each specious present no moment is presented *twice over*. Thus, if t_2 is presented as privileged, a *previous* moment t_1 is presented as non-privileged (along with another *successive* moment t_3 also presented as non-privileged). Thus it is not the case that t_2 is presented_p as non-privileged, before being presented_p as privileged, as the tenseless inflationary distributionist has it. Such change is *never phenomenally present*. It is only the *transition* from one phenomenal present to another that contains a moment changing from being felt as privileged to not being so felt. For instance, we may have a specious present e_2 in which a moment t_2 is represented as privileged and a successive specious present e_3 in which t_3 is represented as privileged and successive to t_2 .

1. e_2 [t_1 is not privileged < t_2 is privileged < t_3 is not privileged]

¹⁷Note the tenseless content is the one from which the content containing the present_R is derived. This latter can be seen as tensed (or as non-tenseless, at any rate) given that it presents us with one moment as privileged.

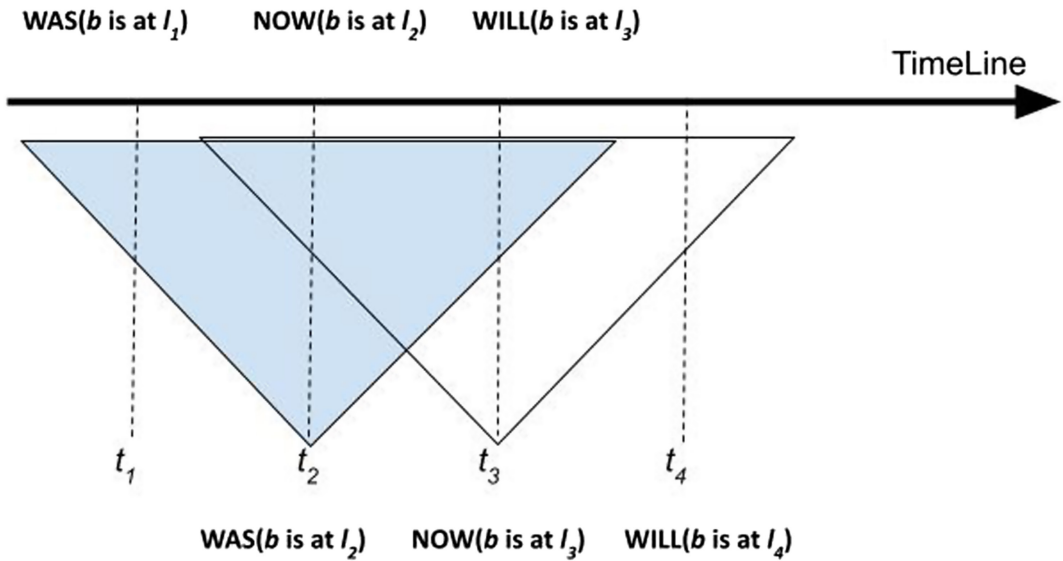


FIGURE 1 Retentionalist distributionism

2. e_3 [t_2 is not privileged < t_3 is privileged < t_4 is not privileged]
3. $e_2 < e_3$

The succession from e_2 to e_3 can be taken to help us to acquire information about the passage from t_2 being privileged to t_2 non-being privileged, and the passage from t_3 non-being privileged to t_3 being privileged. But this passage *is not itself phenomenally present*, it is *not* presented_p to us. If we are aware of it, it is not in the same sense in which we may be aware of the movement of a ball that throughout the short interval t_1 - t_3 shifts from l_1 to l_3 , by seeing it moving. It is important to stress that the fact that the change in the privileged status of a moment cannot be apprehended “all at once” in a phenomenal present is *not a consequence of the phenomenal present being too short for it*. The point is that, if experiences with extended contents present a moment within their span as privileged, they cannot present *it* also as non-privileged (while they *can* present a ball as being in location l_1 as also being at location l_2).¹⁸

3.1.2 | Inflationary from tensed content

Consider a perceptual experience e_2 with a tensed content. e_2 presents us with a ball b having been at location l_1 , being now at location l_2 , and being about to reach location l_3 . The moment t_2 (namely the state of affairs of b being at l_2) is presented_p as present_R, namely felt as privileged:

¹⁸Are we making the assumption that experience cannot have contradictory contents? We are not assuming that experience cannot present us with contradictory ordinary qualitative contents, such as something being and not being square, or a ball moving and not moving. *A fortiori*, thus, we are not assuming that experience cannot have any kind of contradictory content. We are only making the weaker claim that experience cannot present us with a moment as privileged and not privileged in the same breadth. Although we are not defending it here, we take this weaker assumption to be more plausible (see also paragraph Section 3.2.1).

$$e_2 [\mathbf{WAS}(b \text{ is at } l_1) \ \& \ \mathbf{NOW}(b \text{ is at } l_2) \ \& \ \mathbf{WILL}(b \text{ is at } l_3)]$$

The idea of tenses in the specious present is not new. For example, the so-called modal retentionalists (e.g. Almäng, 2014) assume it to account for our experience of ordinary motion and change. According to modal retentionalism, tenses are the *modes* in which movement and change are presented in the phenomenal present. One may be tempted to exploit the same proposal to model the experience of the flow. In order for e_2 to deliver a sense of the flow, we should be presented with a change in the distribution of tensed properties within e_2 's content.¹⁹ Thus, e_2 should deliver that it was the case that t_2 was not felt as privileged, but now it is the case that t_2 is felt as present. But even in the tensed version of distributionism, it is not the case that a moment is presented *twice over*. Rather, the specious present presents us with distinct moments and their (perspectival) positions in time. The change of tense status (e.g. from future to present, or from present to past, or from past to more past) can be “presented” only in the comparison between two specious presents, as shown in Figures 1 and 2

In other words, the very role of tenses as temporal modes of presentation of the various parts of the temporally extended perceptual content entails that we cannot be presented_p with a change in how they are distributed. Again, if perceptual experience helps us to acquire information about such a change, it is not through its content.

3.2 | Deflationary temporal distributionism

The idea behind deflationary temporal distributionism is that there is a persisting entity p that plays the role of the present_R and that the perception of the change of its temporal location constitutes the experience of the flow. This position thus entails that every moment that is present_p to us is present_R. There are at least four proposals of this sort in the existing literature, which differ as to what p is taken to be. Velleman's (2006) theory of the *self* as moving through time,

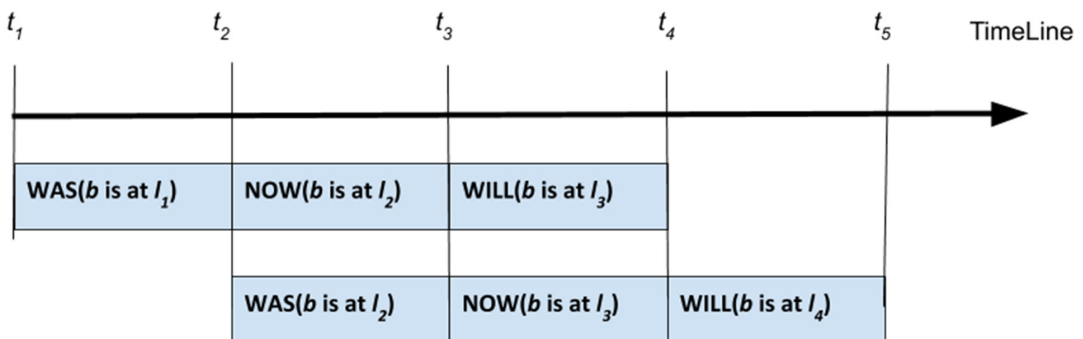


FIGURE 2 Extensionalist distributionism (the various specious presents do not overlap for graphical purposes)

¹⁹Isn't the variation in tenses across the specious present sufficient to deliver a sense of flow? No. As Torrenco (2018) argued in length, unless tenses come with a primitive dynamic element inbuilt in them, we cannot *reduce* the experience of flow to the mere arrangement of tenses in perceptual content.

Soteriou's (2013: 141) theory of successive *present times*, Prosser's (2016) theory of "contradictory" perception of persisting *objects*, and Sattig's (2019a) theory of the experience of the *field of simultaneity* (roughly, what perception presents you as simultaneous) as persisting through changes in its content. The first one assumes wide pheno-flow realism, while the other three assume something close to narrow pheno-flow realism. Again, for ease of exposition we begin with narrow pheno-flow realism, and then in Section 4 we will show how to generalise to the wide version. The core of our criticism is that once fully articulated, the version that begins from a tenseless content collapses into a form of deflationism, and the version that begins from a tensed content collapses into inflationary distributionism.

3.2.1 | Deflationary from tenseless content

Consider an experience e_3 , happening at t_3 , with an extended content of a ball b moving from l_1 (where it is at t_1) to l_3 (where it is at t_3)

$$e_3 [b \text{ is at } l_1 < b \text{ is at } l_2 < b \text{ is at } l_3]$$

The deflationary distributionist identifies a further *persisting* object besides b ,²⁰ the one we have called p (namely *the present*), that is also presented in e_3 's content. A perceptual experience of p 's temporal location can be understood in terms of an experience of how p is characterised by a moment (that is, a state of affairs presented in the specious present). And a moment becomes privileged in virtue of characterising p . In the example: p is presented as being characterised by the state of b being at l_1 , before being characterised by the state of b being at l_2 , and before being characterised by the state of b being at l_3 . If we take "C" to stand for a relation of characterisation between states of affairs and persisting entities, we can write:

$$e_3 [C[b \text{ is at } l_1](p) < C[b \text{ is at } l_2](p) < C[b \text{ is at } l_3](p)]$$

To make the example more vivid, consider p to be your visual field and "C" to be roughly "containing a presentation of the state of affairs that..." Thus, " $C[b \text{ is at } l_1](p)$ " reads as: my visual field p contains the presentation of the state of affairs that the ball b is at location l_1 .²¹

Now, how is the *change* in how p is characterised to be presented in e_3 ? If merely by means of the succession relation, then the position is a form of pheno-flow deflationism after all. The change in p is perceived as nothing more than enjoying a certain qualitative profile at t_1 , before enjoying another qualitative profile at t_2 , before enjoying another qualitative profile at t_3 , the

²⁰This is not true for Prosser's version, but the criticism still applies once slightly reformulated.

²¹Soteriou (2013) seems to argue for a view of this kind: "Everything that the subject is perceptually aware of is experienced as occupying an interval of time that is temporally 'present'. Each sub-interval of that interval of time seems to the subject to be concurrent with her awareness of it, and so in that sense, each sub-interval of time seems to the subject to be temporally 'present'. Those sub-intervals of time seem to the subject to be successive [...] So there is a sense in which the interval of time that falls within the subject's temporal sensory field seems to the subject to be made up of *successively* present times. As a result, phenomenology is something like the successive unfolding of present times" (Soteriou 2013:141). See Frischhut (2017:256) for criticism of this view.

persisting object p behaves in perception like any other object that undergoes a change. If so, the experience of *succession* captured by experience e_3 *exhausts* the temporal aspect of perception, as predicted by pheno-flow deflationism.

3.2.2 | Deflationary from tensed content

Consider now the tensed version of the content of an experience e_3 that happens at t_3 and present us with the ball b being now at l_3 , having been just before at l_2 , and having been, just before that, at l_1 . (WAS₋₁ and WAS₋₂ are tensed operators that express the felt temporal distance from the present.)

$$e_3 [\text{WAS}_{-2}(\mathbf{b \text{ is at } l_1}) \ \& \ \text{WAS}_{-1}(\mathbf{b \text{ is at } l_2}) \ \& \ \text{NOW}(\mathbf{b \text{ is at } l_3})]$$

According to the deflationary temporal distributionism e_3 present us with p as being now characterised by the state of b being at l_1 , as having just been characterised by the state of b being at l_2 , and as having been, just before that, characterised by the state of b being at l_1 :

$$e_3 [\text{WAS}_{-2}(\mathbf{C[b \text{ is at } l_1](p)}) \ \& \ \text{WAS}_{-1}(\mathbf{C[b \text{ is at } l_2](p)}) \ \& \ \text{NOW}(\mathbf{C[b \text{ is at } l_3](p)})]$$

McTaggart's ghost lurks behind this proposal: if p in “WAS₋₂(C[b is at l_1](p))” maintains its special status of the entity that is characterised by what is present_R, it is contradictory to present it *as past*. So maybe p does not maintain its special status, and the role of the past operator is precisely to display that it *did* have that special status. But if the ghost is dispelled in this way, then are not the tenses doing *all* the work? It is the distribution of tenses alone that signals out what is present_R in the phenomenal present and what is not. Fully articulated, the position collapses into its inflationary counterpart, and inherits its main problem: there cannot be a direct perception of change in the distribution of tenses, because to any change in the arrangement of tenses there corresponds a change *in experience*.

Finally, one may complain that the theories in the contemporary landscape involve other elements too. Prosser's view involves the representation of contradictory contents. Sattig' (2019b) proposes an alternative, higher-order, account along with his “first-order” deflationary distributionist account we have assessed so far. However, these elements are not of much help. The representation of impossible contents in Prosser may explain why the experience of the flow is illusory rather than veridical but has no role in explaining how the sense of the flow arises.²² As far as Sattig's high-order account is concerned, the explanatory machinery employed to capture the sense of the flow is

²²Sattig (2019a: 280–281) raises the very same criticism. Prosser (2016) maintains that our feeling of the flow is due to representing objects as “wholly present” endurants, rather than four-dimensional, worm-like, perdurants. The analysis of change is different if objects are represented enduring rather than perduring. In the first case, the whole object O ceases to enjoy property P and acquires property $\sim P$ instead. In the perdurantist case, a temporal part of O at t enjoys P and a temporal part of O at t' enjoys $\sim P$. If two different (temporal) parts of the same object enjoy contradictory properties, no contradiction is in place. Thus, representing objects as perduring does not involve contradictory, *viz.* false, representations. The same is not true for representing enduring objects: If the *whole object* is represented as both P and $\sim P$, there is a contradiction in play.

structurally the same as the standard deflationary distributionism. Higher-order *perceptual* (or perceptual-like) contents cannot present_p us with a change in the temporal location of the present_R.²³

4 | WIDE TEMPORAL DISTRIBUTIONISM

It is now time to consider wide temporal distributionism, that is distributionism understood on the basis of *wide* pheno-flow realism. In this case, the phenomenal present is not the temporal width of a perceptual content (the present_p), but it is the temporal width of a short-lived experience (the present_w), with a phenomenal character that is not entirely perceptual, for instance, because it also involves very recent memories and anticipations of what is about to happen. Thus, the core principles are the following:

(Privilege)^W My experiences present_w me with one moment that is felt as privileged (the present_R)

(Distribution)^W My experiences present_w me with a change in what is felt as privileged (the present_R)

Although the details of the position may vary, it is important to stress here that the core idea is that the “wide” experiences in questions are still unified in some phenomenal sense, and *as such* they purport to constitute the phenomenology of the passage of time. That is to say, we are not considering extended experiences composed by perception and memories (and anticipations) which can, in virtue of inferential processes, be the experiential basis of a *belief* in the passage of time. If our temporal experience is exhausted by those, then deflationism is true. Wide distributionism is a reductive approach to the *phenomenology* of passage, and not a form of deflationism. According to it, the experience of passage is a non-entirely perceptual experience of change. Although we do not want to rule out the possibility that such experiences (if any) are temporally more extended than perceptions of change and movement, they are still experienced all at once and have a specific phenomenal character.

Let us see now how the argument marshalled in Section 3 against narrow distributionism can be applied to its wide versions too.

4.1 | Wide inflationary distributionism

Recall narrow inflationary distributionism from tenseless content. In its wide version, the experiences that have the phenomenal character to which the experience of the passage of time is reduced to have experiential parts involving memory (short term or perhaps on-line memory)

²³Sattig's (2019a; 2019b) key idea is that the experience of the flow coincides with what he calls “phenomenology of replacement.” We take his account of the phenomenology of replacement to be a deflationary distributionist view, and thus unstable between pheno-flow deflationism and the inflationary view. However, sometimes Sattig seems to suggest that the phenomenology of replacement can be analysed also in a pure-update fashion (e.g., Sattig 2019a:290). The criticism of the pure update view will be exposed in Section V.

and experiential parts involving anticipatory imagination, along with a perceptual “core.” For instance, considering e^W_2 as described below:

e^W_2 [t_1 is remembered as privileged < t_2 is perceived (as privileged) < t_3 is expected to be privileged].

The only difference between the narrow and wide inflationary distributionalism is that in the latter, but not in the former, a specifically non-perceptual *phenomenology* characterise certain experiential parts, such as the ones that present t_1 and t_2 , respectively. However, such a difference is irrelevant in the context of a tentative reduction of the phenomenal character of the experience of the passage of time to the experience of change in what is presented as privileged. If wide distributionalism is true, the experience required to be aware of the passage of time should present us with a change in what is perceived, as opposed to remembered and anticipated. And crucially, they should present this change through their distinctive (non-merely perceptual) phenomenology, and not simply by being the base on which a *belief* in the passage of time can be inferred. But, as in the narrow case, it is only in the passage from one experience to another that can make us aware of a change in what is present. And if awareness of a change in what is present is what the experience of the passage of time reduces to, then what is like to feel time passing cannot be part of the phenomenal character of experiences such as e^W_2 .

What changes if we start with a tensed content? Also in this case the argument can be adapted against forms of wide distributionalism. Suppose that a non-merely perceptual experience e^W_2 presents us with the moments that “flank” the one that is currently perceived both through non-perceptual modality, and as located in the past and the future respectively. Consider the characterisation below, in which WAS^R and $WILL^A$ are ways of remember-as-past and expect-as-future respectively:

$$e^W_2 [WAS^R(b \text{ is at } l_1) \ \& \ NOW(b \text{ is at } l_2) \ \& \ WILL^A(b \text{ is at } l_3)]$$

According to a theory constructed along these lines, at each moment different mental faculties “work together” in delivering the sensation that the presently perceived moment is *privileged*, while the moments in memory or anticipation were and will be, respectively, privileged. The analogy between wide inflationary distributionism and its narrow counterpart is clear. The only difference is that the narrow version has perceptual modes of presentations responsible for the tensed character of the content, while in the wide versions different faculties attribute “perspectively” distinct temporal locations to the various parts of the content.

However, the problem discussed above remains the same: such a structure is not sufficient to deliver the experience of *change* in what is present_R. Again, the phenomenal character of one experience is not what can provide us a sense of flow, we need the passage from one experience to another, and as before this means that such a sequence of experience can at best be what is required for us to come to believe that time passes.

4.2 | Wide deflationary distributionism

What about if the wide, non-purely perceptual, experiences in question are experiences of a temporal field that is characterised by different contents at different times? The only difference with

the narrow version is that in this case the characterisation relation C^W does not involve merely perceptual elements:

$$e_3^W [C^W[b \text{ is at } l_1](p) < C^W[b \text{ is at } l_2](p) < C^W[b \text{ is at } l_3](p)]$$

This means that, if we consider p to be the visual field, and thus “ $C^W[b \text{ is at } l_1](p)$ ” to read as “my visual field p contains the presentation of the state of affairs that the ball b is at location l_1 ”, this presentation may be due to a fading short-term memory, or some other non-perceptual experience (or maybe a combination of perceptual elements and non-perceptual ones). But again, why should this difference be relevant? If we are aware of the *change* in how p is characterised through a non-merely-perceptual experience that presents us with a *succession*, then the position is a form of pheno-flow deflationism. It should be clear at this point that bringing in tenses as a mode of presentation does not change the situation and analogous arguments as the ones we saw for the narrow version apply to wide deflationary distributionism from tensed content too.

5 | PURE UPDATE VIEW

In this last section before the conclusion, we will consider a more radical form of deflationary reductionism, the *pure update view*. This is a *non-distributionist* form of reductionism; that is, it is *not* an attempt to reduce the experience of flow to an experience of change in what is present_r within a phenomenal present. Roughly, while according to temporal distributionism (both inflationary and deflationary versions) the change in what is felt as privileged is (or should be) *presented as happening*, according to the pure update view the change in what is felt as privileged, *as a matter of fact, happens*, and this suffices to have an experience of flow; no direct apprehension of it is required. As such, the pure update view is a non-distributionist, reductionist theory accepting wide pheno-flow realism.

To discuss the pure update view, we need to consider at least two possible metaphysical assumptions: the B-theory and the A-theory. B-theorists, as anti-realist with respect to an objective flow, can endorse a pure update view according to which the experience of the flow is explained by the fact that in a succession of experiences we are presented at different times with different temporal perspectives. Ismael (2017), for instance, identifies the experience of flow with what she calls a “Temporally Evolving Point of View (TEvPoV) – that is, not just the view from a particular moment in a life, but the progression of views over a life as a whole[...]”, which we obtain “by stringing together temporally embedded points of view in an order defined by their frame-defining temporal parameter” (2017: 28). Ismael explicitly takes the issue of whether the content of our perception is punctual or extended as immaterial to “the phenomenology of the flow” (2017: 29), thereby suggesting that the phenomenology in question depends on there being TEvPoV, and by perception having a perspectival nature, rather than by some feature of the content (such as representing the flow of time).²⁴

²⁴Notice that pure update views are compatible with primitivism (Balashov 2005; Smith 1988 go in this direction), but also with pheno-flow deflationism. Callender (2017) seems to agree with most of what Ismael says about the temporal structure of the succession of experience, but he denies the sense of privilege and seems to be deflationist towards the sense of flow. Similar views are defended also by Hohwy et al. (2016) and Lee (2017).

The problem with the pure update view as a reductionist form of pheno-flow realism is apparent if we think again of the parallel with pheno-temporal realism. A succession of experiences can make available information about changes in the environment around us thanks to our ability to recollect in memory past instantaneous experiences and *notice* that what is *now* in a certain position (or has a certain quality) was not in such a position (or has not such a quality) *then*. However, in and of itself, the fact that our experiences succeed one another cannot ground any specific phenomenology of motion or change. The specific phenomenology of motion or change requires experiences of motion or change that are genuine, in the sense of not being the result of a comparison between temporally distinct experiences.

Similar remarks can be applied with respect to the experience of the flow. What the pure update view puts us in a position to explain is the *inference* to the flow-like character of time based on the comparison between past and present experiences, rather than the specific phenomenal character of the experience of flow. A succession of experiences can make available information about the passage of time in the environment around us thanks to our ability to recollect in memory past experiences and *notice* that what is present *now*, was not present *then*. If this is true, the pure update view is only compatible with either deflationism or primitivism, but it is a non-starter as a form of reductionism.²⁵

But maybe we have been too fast. The pure update view allows for an A-theoretic version, (also based on wide pheno-flow realism), in which the objective flow of time is assumed in the background. Thus, even if the change in what is present_R is never presented_W to us, the *world itself displays it*, and we are aware of it in virtue of the fact that our experiences unfold in time and thus are part of it. More precisely, the defender of the A-theoretical pure update view could argue as follows.

- a. There are ever-changing absolute (non-time-relative) matters of fact about what time is objectively present
- b. Our experiences are temporally structured as sequences of events ... e_1, e_2, e_3, \dots , and an experience e_x is objectively present if and only if it happens at a time t that is objectively present
- c. If an experience e_x is objectively present, there is an absolute matter of fact about e_x 's content (and nothing else) being presented_W to us
- d. If there is an absolute matter of fact about e_x 's content being presented_W to us, there is an absolute matter of fact about what we experience as present_R
- e. If there are ever-changing absolute matters of fact about what we experience as present_R, we experience the flow of time
- f. Conclusion: we experience the flow of time

What explains our experience of flow, thus, it is not merely that we have a succession of experiences, but that there are ever-changing absolute (non-time-relative) matters of fact about what is presented_W to us, and thus in what we experience as present_R.²⁶ Unlike the B-theoretic

²⁵If O'Shaughnessy (2000)'s theory is understood as a form of reductionism, then it is also susceptible to this objection.

²⁶Skow (2011, 2015: chap 12) seems to have in mind something like this argument when he investigates the possibility of funding abductive evidence for the moving spotlight view from experience. He criticises it, but his criticism does not concern the point we are focusing on here. He argues against the idea that only by admitting an objective present we can make sense of something being available to us in experience (that is, being presented_p to us) in a non-time relative sense (cf. also Balashov 2005). He argues against premises (c) and (d) of this argument. We are concerned with premise (e). The metaphysics defended in Cameron (2015) or in Deasy (2015) could be exploited to elaborate a form of A-theoretic pure update view, but neither author seems to rely much on the connection with experience in arguing for their metaphysics.

version of the pure update view, the succession of experience is not supposed to mimic a *presentation* of a change in what is present_R. Rather, the successive presentation in the objective flow of time of different contents *constitutes a feature of our own experiences*. In other words, it is a feature of our own experience, and not of their contents, that we are constantly presented with new present_R contents. And being aware of *this* feature of our own experience (and not being aware of a change in what we experience as present_R) is being aware of the flow of time.

The problem with this version of the pure update account is that it violates a plausible principle about the possibility of being aware of the features of one's own experiences. Even if we deny transparency when it comes to temporal properties, or we admit of a relaxed form of transparency in the temporal case,²⁷ it seems plausible to admit that in order for us to be aware of features of our experience, we should be in a position to make our experiences an object of experience, even if possibly only indirectly, or derivatively. Let us call that the introspection constraint.

5.1 | Introspection constraint

(Introspection Constraint) If I am aware of a phenomenal property *P* of my experience (distinct from any of the properties that the experience's content presents), I am in a position to make *P* an object of my experience.

The introspection constraint seems plausible in the non-temporal case. If *being blurry* is a feature of our experience rather than a feature with which we are presented in a visual experience's content, then we are in a position to be aware of the blurriness of our experiences (along with their content, what they present *as blurred*). If after-images are features of the visual field itself, and not features of what the visual field presents to us, then we are in a position to make the visual field (together with what it contains) an object of experience. It is difficult to think of reasons why in the temporal case the introspection constraint should be dropped.

If the constraint is in place, then premise (e) is false. In order for us to be aware of the ever-changing absolute matters of fact about what we experience as present_R, it is not sufficient that *there are* such matters of fact. Therefore, if there are ever-changing absolute matters of fact about what we experience as present_R, it does not follow that we are aware of them, and thus aware of the flow of time. In other terms, there is an explanatory gap between the claim that our experiences are undergoing a process of "genuine" change, and the claim that we are aware that our own experiences are undergoing such a change. Trying to fill in such an explanatory gap by claiming that such change is also in the *content* of our experience means to fall back to temporal distributionism.

6 | CONCLUSION

Pheno-flow realism comes in three guises: primitivism, distributionism, and the pure update view. In this paper, we argued that only primitivism is available to the realist; that is, if the flow is given in our perceptual contents, it is because it is primitive. Inflationary distributionism cannot deliver the sense of the flow, since any change in what is felt as privileged *in* experience

²⁷For example we may allow for considerations like Richardson's (2014) who claims that we can be aware of features of our experience (like the boundaries of our visual fields), only *as ways* in which objects appear to us.

corresponds to a change of experience. Deflationary distributionism is an unstable position collapsing either into its inflationary counterpart or onto pheno-flow deflationism. The claim that the pure update view delivers the sense of flow violates the introspection constraint. Since primitivism is the only option available for pheno-temporal realism, our conclusion is disjunctive: either primitivism is true, or deflationism is.²⁸

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²⁸We are not, of course, excluding a priori that in the future other forms of reductionism could be devised that escape our criticism. But we take the burden of the proof to be on our adversaries.

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