

Feeling the passing of time*

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It is one of our ordinary beliefs that time passes. And it seems trivial to say that we think this to be so because our experiences tell us so. I distinguish between these two ideas. More precisely, I distinguish the *ordinary belief* that time passes from the *feeling* that time passes – that is, the phenomenal character of the passage of time, or the experience as of time passing. The former is part of our common sense narrative about reality, and hence it is a feature of experience only in the broad sense of the term, which includes not only presently occurring perceptions but also memories, thoughts about the future, and our cognitive life in general. The latter is a characteristic of the way our conscious states feel to us, and hence a feature of experience in a stricter sense – one including only presently occurring sensory and perceptual mental episodes¹.

The *prima facie* connection between the feeling and the belief is straightforward. We believe that time passes because we feel it passing. However, the status of the feeling of time passing is a matter of debate. *Naive Representationalists* believe that it is a representational feature of the content of our experience, like being red or yellow. *Reductionists* hold that temporal experiences with qualitative characters, such as experiences as of motion or change, are responsible for the feeling of the passage of time. *Deflationists* maintain that there is no distinctive phenomenological character of the passage, but only an intuitive grasp of the ordinary belief that time passes². The

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¹The distinction is rarely explicitly appealed to in the literature, but there are exceptions. See Christoph Hoerl, “Time and the domain of consciousness”, *Annals of the New York Academy of Sciences*, 1326 (2014): 90-96, and Natalja Deng, “On explaining why time seems to pass”, *Southern Journal of Philosophy*, 51, 3 (2013): 367-382 (who contrasts the intuition of passage with the experience of passage).

²I distinguish at least two further positions: *Sophisticated Representationalism* attributes the experience

aim of the present paper is to outline a theory of the phenomenology of the passage of time that overcomes the difficulties that other approaches face. I call my position the *Phenomenal Modifier* view. Roughly, according to this view, the feeling of the passage of time should be understood as a modifier of the character and content of experience, just as the *blurred*, or *vivid* nature of a visual experience can be seen as modifying the way the experience feels to us.

In this paper, I focus on the *deflationary* hypothesis that there is only the naive *belief* that time passes, and that there is no specific *sensation* of its passing (Par. 2). Although I argue against the idea that we mistake some different phenomenon for the “what it is like” of the passage of time, I consider the deflationist arguments against naive representationalism and reductionism to be sound, and I take the morale to be that we should distinguish the feeling of the passage of time from ordinary representational contents, such as those associated with features such as colors or shapes. Indeed, the phenomenal modifier view that I outline and defend (Par. 3 and 4) can be seen as a way to flesh out that idea.

1 Is there a specific feeling of the passage of time?

Let me start by fixing some terminology and by making a few preliminary assumptions. The term ‘experience’ is ambiguous: both a token reading and a type reading are possible. In the token reading, experiences are events – e_1, e_2, \dots, e_n – that involve phenomenological and first-personal elements, along with an underpinning biological activity. A subject S ’s whole experience is constituted by a series of such (token) experiences or *mental episodes*. There are different kinds of mental episodes, such as perceptions, recollections, imaginings, and so on. In the type reading, experiences are individuated by their *representational content* and *phenomenal character*. By having an experience e with representational character C_F , a subject S has a mental episode that represents the world as having feature F . For instance, if e is a perception among

of the passing of time to its being *tensed* (see Jan Almäng “Tense as Feature of Perceptual Content”, *Journal of Philosophy*, 7 (2014): 361-378). *Attitudinalism* is the position according to which the sensation of the passing of time is a feature of our attitude towards representational content – its *temporal directedness* (see Uriah Kriegel “Experiencing the Present”, *Analysis* 76 (2015)). But for few references to sophisticated representationalism, discussion of these alternatives is not considered here. I discuss them in my “Perspectival Tenses and Dynamic Tenses”, *ms*.

the mental episodes of S and has content C_F , I will say that S perceives the world as having feature F . By having an experience e with phenomenal character E_F , a subject S experiences a certain “what it is like” to have that mental episode. For instance, if e is a perception among the mental episodes of S, and has phenomenal character E_F , I will say that S has an experience *as if* the world has F – that is, E_F is the characteristic “what it is like” to perceive the world as having F .

This is rather crude, since I will use labels such as ‘ E_F ’ and ‘ C_F ’ for features (aspects, “ingredients”) of the phenomenal character and representational content of experiences (respectively). The relation between specific features of an experience and its phenomenal character or content as a whole is not trivial, and a full treatment of it lies beyond the scope of the present paper. I will just make the quite minimal assumption that it is possible, at least in many situations and with an acceptable degree of approximation, to reliably individuate features of token experiences, and on that basis to individuate features of type experiences. With this assumption as my starting point, I formulate the first working hypothesis (FWH) of my proposal:

(FWH) There is a feature E_T of the phenomenal character of our experience that corresponds to the “what it is like” of the feeling that time passes.

The relationship between phenomenal character and representational content is a matter of debate. Philosophers of mind are often interested in explaining why experiences have certain phenomenal characters rather than others. If I have a perceptual experience as of red, say, it is an interesting question to ask why my experience has the phenomenal character E_{RED} , associated with what it is like to perceive red, rather than the phenomenal character R_{YELLOW} , associated with what it is like to perceive yellow. An answer to this question is provided by the position known in the literature as representationalism³.

³See Tim Crane, “Intentionalism”, in *The Oxford Handbook of Philosophy of Mind* (2009) edited by Ansgar Beckermann, Brian P. McLaughlin, and Sven Walterand; and David Chalmers “The Representational Character of Experience”, in B. Leiter (ed.) *The Future for Philosophy*, Oxford, Oxford University Press (2004): 153-181. The thesis is often called *intensionalism*, which is also the label for a (related) view on temporal experience in the “specious present” literature, as opposed to *extensionalism* (see Barry Dainton “Time and Temporal Experience”, in: A. Bardon (ed.) *The Future of the Philosophy of Time*, New York, Routledge (2012), Ian Phillips “Experience of and in Time”, *Philosophy Compass*, 9/2 (2014): 131-144, and Christoph Hoerl “A Succession of Feelings, in and of Itself, is Not a Feeling of Succession”, *Mind*, 22,

(Rep) The phenomenal characters of experiences are identical to, or supervene on, their representational contents.

The idea behind representationalism is that there is a very close connection between the “what it is like” to have a given perceptual experience e (as a mental episode in general), and the way e represents the world as being, such that one can be explained in terms of the other. Thus, if an experience e has E_F , we can explain why this is so by explaining why e represents the world as having F ; that is, why e has C_F . For instance, we can provide an explanation of the phenomenal character E_{RED} of a given experience e as seeing a red thing in terms of e being a perception of a red thing, and hence having C_{RED} , rather than e being a perception of a yellow thing, and hence having C_{YELLOW} .

Representationalism could be exploited to clarify the phenomenal character of the passage of time in the following way. We can claim that our mental episodes have E_T , because they have representational content C_T – that is, we experience the world as if it is dynamic, because our experiences represent reality as possessing a dynamic feature T^4 . This is the position I label *Naive Representationalism*. According to such a position, E_T is a *specific* ingredient of our ordinary phenomenology in the sense that C_T represents the “pure” passage of time, it does not represent change, movement, or some other qualitative temporal feature of reality. Now, even granting **Rep** and **FWH**, the claim that there is a specific phenomenological character E_T is not trivial. More precisely, it must not be confused with the claim that our experience somehow tells us that time flows. The latter is a truism of which we have an intuitive grasp, whereas the former is a hypothesis about the correct characterization of the phenomenology of our ordinary experience, which requires theoretical elaboration to be expressed and grasped. Heuristically, we can individuate the feeling of the passing of time with whatever ingredient of our experience tells us that time passes (that is, the ingredient on which the common-sense belief that time passes is based), but that does not secure such a feeling as a specific aspect of our phenomenology, since we may *mistake* certain qualitative aspects of our temporal experiences as the “pure” experience as of time passing. In other words, simply saying that the feeling of the passing of time is what

486 (2013): 373-417). I will not discuss the issue of intensionalism vs. extensionalism here.

⁴See Simon Prosser “Why Does Time Seem to Pass?”, *Philosophy and Phenomenological Research*, 85, 1 (2012): 92-116

originates the ordinary belief does not entail an answer to what I will call the “origin problem”, namely the question of whether the origin of our ordinary belief that time passes is a specific ingredient of how our conscious mental life feels to us, or is something else.

More specifically, there may be one or more features of the content of our mental episodes at the origin of our ordinary belief about the passage of time, but none of them is a representation of the passage of time. Consider the list below of temporal features that seem to be possible objects of perception:

- (i) Qualitative change
- (ii) Movement
- (iii) Succession
- (iv) Persistence
- (v) Duration

At least when we have “direct” perception of any of (i) - (v), it is plausible to claim that our experiences have a dynamic *I-don't-know-what* that other experiences lack. For instance, the experience of realizing that a meeting has lasted forty minutes, after looking at the clock, differs from the experience of seeing a light signal turned on for just few seconds – just as watching the second hand of a clock moving is different from seeing that the second hand has moved from where it was one hour ago.

The *reductionist* thesis with respect to the experience of the passage of time is that the source of our common-sense belief about the passage of time is a specific phenomenal character E_T , for which the phenomenological characters of direct perceptions of features such as (i) - (v) are responsible. There is room for a different construal of “being responsible” here, but a minimal constraint is that it entails that E_T is an ingredient of the phenomenal character of any experience that is responsible for it. Thus, reductionists do not deny **FWH**. The *deflationist* thesis with respect to the experience as of time passing is that the source of our common-sense belief about the passage of time is in some sense based on the phenomenological characters of direct perceptions of features such as (i) - (v), and *not* on a specific experience as of time passing. Hence, according to deflationism, there is no specific feeling of the passage of time, although there is the common sense belief that time passes, and there is a specific feeling of

motion and of change that certain experiences have and others don't. In other words, although the deflationists may agree with the truism that experience somehow tells us that time flow, deflationism is not compatible with **FWH**.

I think the thought that there is no such thing as E_T , in its crudest form, must be rejected, and **FWH** maintained, but I also think that there is something right in the general suspicion about a specific phenomenology of the passage of time. More precisely, I take it to be correct that E_T should not be assimilated to phenomenal characters that are connected to *ordinary* representational features of our perceptions. An ordinary representational feature is one that can easily be individuated in everyday mental episodes, such as the shape, dimension, and color of objects, the duration of (short) events, the changes in properties of objects, and so on. The notion of an ordinary representational feature is vague, but I take it to be clear enough for the purpose. The claim that E_T is not connected to an ordinary representational content entails two further theses. The first is that it is false that our ordinary experiences represent not only things having shapes, colors, moving and changing, *but also* time passing – that is, naive representationalism is untenable. The second is that representational contents of features such as (i) - (v) cannot be responsible for E_T – that is, reductionism is untenable as well.

To illustrate the point and defend those two further claims, I will discuss what Christoph Hoerl, in a series of recent papers, has called the “intelligibility problem”, and uses to defend a form of deflationism. If someone thinks that there is a specific feeling of the passage of time, she will probably see a connection not only with the common sense belief that time passes, but also with the philosophical debate between realists and anti-realists regarding the subject. A preliminary thought is that our experience makes manifest to us a dynamic feature T of the *world as we experience it*. The realist thinks that T is a genuine, mind-independent feature of reality, whereas the anti-realist thinks that reality does not possess T , but merely appears to possess it⁵.

⁵Many papers in the recent literature contain arguments against the claim that the feeling of the passage of time provides evidence for the realist's position. Roughly, anti-realists on the passage of time have attacked the idea that the hypothesis that T is a feature of reality plays a crucial role in our best explanation of why our experience has a dynamic phenomenal character. This notion can be rejected in different ways, depending on the role that the hypothesis that T is a genuine feature of reality plays in the explanation. See, for instance, Simon Prosser “Could We Experience the Passage of Time?”, *Ratio*, 20, 1 (2007): 75-90, Craig Callender “The Common Now”, *Philosophical Issues*, 18 (2008): 339-361, M. Traynor “Phenomenal Experience and the Metaphysics of Persistence”, *Proceedings of the Aristotelian Society*, 114 (2014): 381-388, and Akiko Frischhut “What Experience Cannot Teach Us About Time”, *Topoi*, 34 (2015): 143-155. Be-

Roughly, the concept of T stands to the naive belief that time flows as the concept of the color red of the world as we experience it stands to our naive belief that there are red things. But how exactly should we understand the claim that T is or is not a feature of reality? In Hoerl's words:

According to the [anti-realist regarding the passage], 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? ⁶

The claim whose intelligibility is at issue in the intelligibility problem is *not* the claim that there is (or is not) a specific phenomenal character of the passage of time E_T . The intelligibility problem concerns how we can make sense of the thesis that all sides, anti-realists regarding the passage of time have resorted to hypotheses about the cognitive interaction with features (i) - (v) above in the text (temporal features whose reality the anti-realist regarding the passage can accept) to explain the illusion of the passage of time. In my classification, those positions count as reductionists. See, for instance, Robin Le Poidevin "The Images of Time: An Essay on Temporal Representation", (2007) Oxford, OUP (who appeals to facts about change and persistence and their interaction with our memories and perceptions to explain how we "project" a dynamic element onto reality), Laurie A. Paul "Temporal Experience", *Journal of Philosophy* 107/7 (2010): 333-359 (who accounts for the sensation of the passage in terms of illusory cases of perception of movement), Ian Phillips "Experience of and in Time", *Philosophy Compass*, 9/2 (2014): 131-144 (who gives an account of the phenomenology of passage in terms of direct perception of durations relative to a non-perceptual stream of consciousness), and Natalja Deng "Our Experience of Passage on the B-Theory", *Erkenntnis* (2013):1-14. See also Sam Baron, J. Cusbert, M. Farr, M. Kon M. and K. Miller "Temporal Experience, Temporal Passage and the Cognitive Sciences", *Philosophy Compass* (forthcoming) for a general discussion. Baron et al.'s distinction between the *illusionist* and the *verificationist* somehow parallel my distinction between *reductionists* and *deflationist*. However, my classification tracks exclusively the stance towards the *experience* as of passage, rather than the relation between how we understand the experience in relation with reality. Although I will not be concerned with the issue of whether our experience in some sense supports the view that the flow of time is not an illusion, for the purpose of formulation, I am assuming as a background an anti-realist approach. For the theory of the experience of the passage of time that assumes a form of realism regarding the matter see Brad Skow "Experience and the Passage of Time", *Philosophical Perspectives* 25: Metaphysics (2011): 359-387, and Brad Skow "Why Time Seems to Pass?", *Noûs* 46 (2012): 223-242. (However, Brad Skow *Objective Passage*, OPU (2015) defends an anti-realist view).

⁶Christoph Hoerl "Do we (seem to) perceive passage?", *Philosophical Explorations* 17(2014a): 188-202.

there is in the world to be perceived are things being located and exemplifying properties at different times, but we illusorily perceive a reality that *flows*. In other words, how should the difference between the appearance of passage and “static” reality be understood?

One could try to exploit naive representationalism to provide a simple solution to the puzzle. According to naive representationalism, E_T is the phenomenological character of an experience with content C_T . Thus, if both naive representationalism and anti-realism are true, E_T is the phenomenological character of an illusory perception (that is, a perceptual illusion)⁷. Consider the case of illusory perceptions of colors. Imagine that I am wearing a pair of glasses with blue lenses and I am observing a patch of yellow. In that scenario, I would have an illusory experience of green. In a scenario in which I am not wearing colored lenses, I have a green patch in front of me, and the illumination is “normal”, my experience of green may be phenomenologically indistinguishable from the previous one, and yet it would be veridical. It is the different interactions between the elements in the environment and in the cognitive systems of the subject that differentiate between the veridical and the illusory cases. If we were in a similar situation with respect to the experience of the passing of time, we could solve the intelligibility problem by contrasting the case of a veridical perception of T , with the case of an illusory perception of T (the case in which we are wearing something like the “blue lens” of passage, as it were). However, as Simon Prosser has made clear, the claim that we *could* perceive T (or reliably detect it in some sense) is highly problematic – at least when it is construed in an empirically plausible way⁸. Hence, as distinct from the case of colors, in the case of the experience of the passing of time naive representationalism does not provide us with a way to draw a distinction

⁷This last remark may be confusing, given that the natural reading of naive representationalism is in terms of *veridical* perceptions of T . This is why it can be exploited to argue in favor of the realism of passage, on the grounds that the best explanation of E_T would require realism (but see note 5 above and 8-9 below for references against such a strategy). However, naive representationalism does *not* entail realism: only that, if realism is true, then E_T is the content of a veridical perception, and if anti-realism is true, then E_T is the content of an illusory perception. Thanks to an anonymous referee for pressing me on this point.

⁸Simon Prosser “Passage and Perception”, *Noûs*, 47, 1 (2013): 69-84. Prosser’s argument is, very roughly, as follows. If the A-theory were true, necessarily, reality would possess feature T . And if our experience of passage were a consequence of our perception of T , then our perceptual system should be able to detect T . But no plausible account of how perception works (for example, through causal or counterfactual relations) is compatible with there being a cognitive mechanism able to detect a necessary feature of reality such as T .

between the veridical situation and the illusory situation of the kind that a solution to the intelligibility problem would require.

Prosser's argument together with Hoerl's intelligibility problem put naive representationalism in a deadly impasse. The naive representationalist can claim neither that E_T is the phenomenological character of a veridical perception with content C_T , given Prosser's argument against the possibility of perceiving T , nor that E_T is the phenomenological character of an illusory perception with content C_T , given that the impossibility of perceiving T impinges on the possibility of solving the intelligibility problem by endorsing naive representationalism⁹. Thus, the appearance of passage is not a *perceptual* illusion, in the usual sense, which requires a distinction between veridical and illusory perceptions, and the naive representationalist way to solve the intelligibility problem is blocked.

An alternative proposal for a solution to the intelligibility problem is to endorse reductionism and claim that the illusion of the passage of time is due to perceptions of features such as (i) - (v). The problem with reductionism is that providing an explanation of what originates the sensation of movement or change may not suffice to solve the intelligibility problem – as Hoerl rightly argues in discussing the role of the illusions of apparent motion in the account of Dainton, Paul, and Prosser¹⁰. In the so-called *phi motion* phenomenon, a subject is presented, in succession, with two luminous dots at a particular spatial distance from each other. If the succession is within certain temporal thresholds, she will experience the continuous movement of a dot going back and forth¹¹. The experience is one of apparent motion because there is nothing moving in

⁹Notice that Prosser's argument is an argument against naive representationalism only if the latter is intended to require our experiences with content C_T to be veridical perceptions of T . Moreover, it is not an argument against sophisticated representationalism, according to which E_T is not the content of an experience (veridical or not), but the sensation of time passing is due to the *tensed way* in which we represent a succession of events in reality. Even though sophisticated representationalism does not entail either realism or anti-realism, its natural reading is in an anti-realist setting (Almäng *op. cit.* is explicit on this point). My main point against sophisticated representationalism is based on the idea that the perspectival aspect of tenses cannot account for the dynamism of experience. See my "Perspectival Tenses and Dynamic Tenses", *ms.*

¹⁰ Barry Dainton "Time and Temporal Experience", in: A. Bardon (ed.) *The Future of the Philosophy of Time*, New York, Routledge (2012), Paul *op. cit.*, and Prosser 2012 *op. cit.*

¹¹See C.W. Tyler "Temporal characteristics in apparent movement: omega movement vs. phi movement", *Q J Exp Psychol*, 25, 2 (1973): 182-92, and P. A. Kolers "Some Differences between Real and Apparent Visual Movement", *Vision Research*, 3/5-6 (1963): 191-206.

front of the subject, but only two spatially separated stimuli presented in succession. Yet, our brain presents us with an experience of an object that is moving from one place to another. An anti-realist regarding the passage of time can thus claim that the *same* illusory mechanism is also operating in ordinary cases of the perception of movement. This means that our brain tricks us into experiencing a dynamic reality even though what we are presented with are things being located (and in general having properties) at different times.

As Hoerl rightly points out, it is not at all clear that misperception of movement (or change) can be equated to the kind of illusion at issue in the intelligibility problem – that is, the illusion that time passes – even if reality is as the anti-realist regarding the passage maintains it is. If the issue is that of explaining the alleged contrast between appearance and reality, apparent motion is ill-suited, since the distinction between the facts that we are misrepresenting and the way we are representing them can be couched in terms that are perfectly kosher for the anti-realist. Again, in Hoerl’s words:

“[... An anti-realist] might say that, in [phi motion], it appears that there is a continuous locational variation across time, where in fact there are just two stimuli at two discrete locations. [...] He might say that [...] there appears to be one persisting object undergoing this variation in location [...] over time, when in fact there are only the two discrete brief stimuli.”¹²

Therefore, the illusory appearance is not that of the passage of time (or some irreducibly dynamic feature of reality that would entail the truth of the realist position), but the illusion of there being certain facts at a time about properties of various entities (for example, their spatial position), which are not actually there. Thus, the intelligibility problem remains unresolved.

Hoerl’s conclusion is that there is no specific ingredient E_T of our phenomenology corresponding to the “what it is like” to feel the passage of time. Therefore, there is

¹²See Hoerl 2014a *op. cit.*. I have edited the passage because Hoerl makes reference to the slightly more complex phenomenon of color phi. The additional complexity is not irrelevant, since it allows Hoerl to consider not only motion but also qualitative change. However, I confine myself to motion, since I take that my considerations – *mutatis mutandis* – apply to change too. Also Nick Huggett, “Skeptical notes on a physics of passage”, *Annals of the New York Academy of Sciences*, 1326 (2014):9-17 defends a form of deflationism.

no perceptual illusion of the passage of time. There is, rather, a *cognitive* illusion. We *think* (wrongly) that there is something like E_T , because we often have experiences that present us a world in which movement or qualitative change occurs. More specifically, we experience certain perceptions as direct perceptions of movement and change, and others as lacking such a feature – while being in some sense experiences of the “same facts”. For instance, the perception of an object that moves at a noticeable velocity (the second hand of a clock, say) has a dynamic flavor that the experience of remembering the hour hand of the clock being in a different position while observing that it has moved forward lacks – even though both are, in a sense, experiences of movement. But a movement *quale* – let us call it E_M – is not something that can make manifest to us what it would be like to perceive a dynamic reality, as opposed to a static one. Hence, we cannot appeal to E_M to make intelligible the distinction between perceiving illusorily reality as dynamic and veritably perceiving a dynamic reality.

To sum up. There are experiences that possess E_M (for example, the direct perception of the movement of the second hand of a clock), and there are experiences that lack E_M (for example, watching the hour hand of a clock). There are experiences with E_M that are correct or veritable (such as watching the second hand moving), and there are illusory ones (such as watching a phi motion setting). But the illusory cases of E_M are misrepresentations of an object moving (their content C_M is not correct), and not of a reality in which there is no dynamism. Hence, E_M cannot be responsible for E_T , and an utterly analogous point can be made with respect to the experience of perceptions of feature (i)-(v) above¹³.

¹³A reductionist may protest that focusing on *individual* phenomenal characters such as E_M is unfair, her point being rather that *any* of the perceptions of (i)–(v) may be responsible for E_T . Let us say, for simplicity, that either E_M or the experience of qualitative change E_C is responsible for E_T . Now, as I pointed out in introducing the position, for a reductionist to claim that a certain phenomenal character E_F is responsible for E_T entails that E_T is an ingredient of all experiences that possess E_F . Thus, if either E_M or E_C is responsible for E_T , then E_T is an ingredient of both experiences that possess E_M and experiences that possess E_C . But given that E_M and E_C are distinct phenomenal characters (that is, one experience may have one but lack the other), the problem with the intelligibility problem highlighted above would still stand: illusory cases of either E_M or E_C are misperceptions of either movement or qualitative change (respectively) and not of a reality lacking T . Moreover, since C_C and C_M are distinct contents (namely, there can be experiences with content C_C that lack C_M), and claiming that E_T is a phenomenal ingredient connected to both sounds suspiciously close to claiming that E_T is the phenomenal character of the “part” C_T that they have in common – that is, to falling back on naive representationalism. Note also that if “being responsible for” is understood as entailing an identity claim, this would lead to a contradiction (if $E_T = E_M$ and $E_T = E_C$, then $E_M = E_C$,

I agree with Hoerl that a sort of *cognitive* – rather than perceptual – illusion can lead us to treat cases in which E_M is absent as veritable perceptions of a world that lacks T . And, if so, one may fall into the *theoretical* mistake of characterizing E_T as due to the phenomenal character of a direct perception of motion – namely, to E_M (or E_C , or some perceptions of features (i)-(v) above). However, I disagree with the further conclusion that there is no specific phenomenology of the passage, but merely the common sense belief that time passes. It may be the case that there is such a phenomenal character, which is the basis of the common sense belief that time passes, and yet there is no easy way to explain how our experience entails a misattribution (if the anti-realist is right) of T to reality (or maybe a commitment to T being exemplified). I take the moral of the discussion of the intelligibility problem to be that E_T is not due to the content of a perception of motion or any other temporal features such as (i) - (v) – that is, reductionism is false. To this conclusion one can react either by abandoning the idea that our common-sense belief that time passes is based on a specific phenomenological character, since **FWH** is false (following Hoerl), or by endorsing the view that E_T is not to be equated with an ordinary representational feature. I prefer the second alternative.

The main problem with the first alternative is that it fails to account properly for the *origin* of the ordinary belief that time passes. That is, if it solves (or, rather, dissolves) the intelligibility problem, it leaves the origin problem unanswered. More precisely, the question of the origin of the belief that time passes seems trivial. It is part of the common sense narrative about reality and our experience of it not only that time passes, but that we believe *so because we feel that time passes*. And E_T *just is* that phenomenal character that gives rise to the common sense belief that time passes, as much as E_{RED} just is the phenomenal character that gives rise to the belief that there is something red in front of me. However, if one chooses the first alternative and denies that there is a specific E_T , the issue of the origin will no longer be trivial. One may reply that this is as it should be, since the origin of the ordinary belief that time flows is the cognitive illusion that leads us to mistake the phenomenological character of direct perception of movement E_M for the feeling of the passage of time. But even if that is a good answer to the intelligibility problem (because the problem would no longer get off the ground), it is not a good answer to the origin problem – it is, at best, only part of the which we assumed does not hold. Another option is to maintain that E_T is a non-representational feature of perceptions with either content C_M or C_C . However, such a move is incompatible with reductionism (more on this in what follows).

story. To see why, consider the following. It is trivial that the feeling of the passage of time gives rise to the belief that time passes, but it is *not* equally trivial that something that is *mistaken for the feeling of the passage of time* gives rise to the belief that time passes. In other words, an explanation is needed of why we mistake an experience of continuous motion or change for an experience that tells us that time is passing. To my knowledge, there is no evidence that there is an explanation of this kind that is clearly a better option than admitting that our experiences have E_T .

Moreover, the deflationist's account seems to admit counterexamples. Contrast experiencing a perception of a phi movement setting working above the threshold and experiencing the perception of the same setting working below the threshold, or watching a movie as opposed to a slow succession of frames. The first kind of experience has E_M , whereas the second kind of experience lacks it. Now, if the belief that time flows is given by the fact that we think that E_M is the ingredient of our ordinary experiences that tells us so, then it should be the case that only the first kind of experience tells us how it feels to experience the passage of time. But that just seems wrong. Although there is no direct perception of movement or change in the second kind of experience, they don't seem to differ with respect to their ability to tell us what it is like for time to pass. Also a "static" (or, better, discrete) succession of perceptions is experienced as part of a dynamic reality. And the same goes for illusory perceptions of other temporal features such as (i)-(v): an experience of "discrete" qualitative change (as in a color-phi setting under the threshold) is still an experience of the passing of time.

These considerations lead me to the my second working hypothesis:

(SWH) All our mental episodes, perceptions, but also memories, imaginings and non-perceptual abstract thoughts, have E_T

If there were no "ubiquitous" phenomenal character E_T , the origin of our ordinary belief that time flows would have to be limited to experiencing E_M or some other phenomenal character connected to direct perceptions of features such as (i) – (v). But that would eliminate many experiences that could also seem to be the origin of the belief.

An opponent may think that this is too hasty, and that SWH requires further support if it is to be established against deflationism. After all, even when there is no experience of motion, we usually have experiences of either qualitative change, duration,

persistence and so on – that is, experiences of features such as (i)-(v). And in *any* such cases, the deflationist might think, the associated phenomenal character is confused with the feeling of passage¹⁴. I grant that this “disjunctivist” version of deflationism, as opposed to the “simple” version that I have attacked, fares better with respect to the origin problem. However, the core point of my criticism still stands. In explaining what originates the belief in the passage of time, the deflationist appeals to veritable or illusory perceptions of a feature F that we mistake for an experiences of T . Confronted with counterexamples, she may turn to the claim that experiences of either F_1 , or F_2 , or ... F_n are what we mistake for experiences of T . Now, for the disjunctivist strategy to work, we need two conditions to be satisfied:

(i) the features whose experiences enter in the disjunction must possess some aspect in common in virtue of which they are all mistaken for experiences of T .

(ii) there are no counterexamples to disjunctivist deflationism either – namely, cases in which none of the features listed in the disjunction are experienced, but which are still mistaken for experiences of the passage of time.

Why we need (ii) is obvious; (i) is perhaps not unassailable, but if it were to fail, the disjunctivist strategy would be less attractive – at least as an attempt to meet the need for an explanation of why we mistake this or that phenomenal character for E_T . What is, then, this aspect X in virtue of which any experience of (i)-(v) is confused for an experience of the passing of time, given that it is not E_T ? An obvious answer is that they all are “temporal” or “dynamic” phenomenal features. But it is difficult to introduce these terms without reference to examples such as those in (i)-(v), and thus it is also difficult to provide a non-circular answer to the question. If so, the disjunctivist answer to the origin problem loses at least part of its force.

What about (ii)? I grant that it is not implausible to maintain that a subject with only one momentary experience would not believe that time passes. Moreover, as I will argue (very tentatively) in the last section, I think that we do have the resources to understand (though probably not to imagine) what an experience without the feeling

¹⁴Thanks to an anonymous referee for raising this objection, and also for inspiring footnotes 13 above and 26 below.

of the passage of time is like. However, the question of whether the belief that time passes would not arise without experiences of features such as (i)-(v) remains open and very hard to answer. In so far as it is doubtful whether (ii) can be satisfied, then, it is doubtful whether SWH cannot be endorsed *as a working hypothesis* along with FWH.

My arguments against the first alternative – that is, following deflationism and abandoning the idea that our common-sense belief that time passes is based on a specific phenomenological character – are not knock-down. However, in the rest of the paper, I will work out my version of the second alternative in more detail, and contrast it with other versions; my hope is that further elaboration will make it the most convincing.

2 The Phenomenal Modifier View

Let me call *worldly* any phenomenal character E_F that corresponds to the “what it is like” to have a mental episode with a content that represents the world as having feature F . If what I have claimed in the previous section is on the right track, E_T is not worldly: it is neither a representation of a pure flow of time, nor a representation of movement, change, or the like. However, to treat E_T as a non-worldly element of how we experience our perceptions (and mental episodes in general) is to say too little. It leaves E_T as a somewhat mysterious phenomenon, and it becomes difficult to see how its characterization could be linked to empirical results or to working hypotheses underlying empirical work. Given that **Rep** is the claim that all phenomenal ingredients reduce to representational content, the claim that E_T is not worldly seems to conflict with it. Indeed, although representationalism is perhaps the mainstream view in contemporary philosophy of mind, some philosophers have rejected it on the grounds that not all phenomenal aspects of experience are worldly¹⁵.

When we experience a visual perception e , we experience many phenomenal characters that are worldly and correspond to ingredients of the representational content of e . For example, by looking at a red sphere in an ordinary situation, we visually perceive the world as containing a red sphere, and we have an experience as if there is a

¹⁵See Paul Boghossian and David J. Velleman “Colour as Secondary Quality”, *Mind*, 389 (1989): 81-103, G. Rey G. “A Narrow Representationalist Account of Qualitative Experience”. In Tomberlin, J.E. (ed.) *Language, Mind, and Ontology. Philosophical Perspectives*, Vol. 12, Atascadero, CA: Ridgeview Publishing (1998), and A.D. Smith “Translucent experiences”, *Philosophical Studies*, 140/2 (2008): 197-212.

red sphere in front of us – that is, an experience with worldly phenomenal ingredients such as *E_{RED}* and *E_{SPHERE}*. But we may also experience features of the perception that we do not attribute to the object represented by the perception. Consider the case of blurred vision, discussed by Boghossian and Velleman:

“[B]y unfocusing your eyes, you can see objects blurrily without being able to see them as being blurry. [The] description [of such an experience] requires references to areas [...] that [...] becomes blurry without anything’s being represented to you as blurry”¹⁶

Analogously, if the illumination under which we observe the sphere is particularly strong, we may experience the perception as *vivid* without mistaking the brightness of the colors around us as a characteristic of the surfaces that we are observing. A non-worldly phenomenal character of an experience, such as being blurred or vivid, is an intrinsic property of the vehicle through which experiences represent the world to us as being in a certain manner. The claim that the anti-representationalist makes is that we can be aware of such non-worldly phenomenal characters, as we are aware of the representational content of our mental episodes. When we attend to such aspects of our perceptions (or our mental episodes), we are aware of aspects of what it is like to perceive something that does not represent the world as being in a way or another. There is a sense in which we can be aware of our vision being blurred even if we do not pay attention to the fact – as when our vision continues being blurred for a long time – but we can also direct our attention towards the blurriness of our experience – as when a short-sighted person realizes she is not wearing her glasses. Having your attention directed toward your vision being blurred or vivid does not consist in having a further mental episode with a mental event as a content; nor does, in general, focusing attention on a particular aspect of what it is like to have the experience that we are having¹⁷.

¹⁶Boghossian and Velleman *op. cit.* p.94.

¹⁷However, my claim is compatible with there being mental episodes with such contents (that is, there being metarepresentations), or even a metarepresentation being a necessary condition for the shift in attention to occur. Also, it is highly plausible to maintain that even when we attend to non-worldly phenomenal characters we are still aware of the worldly elements of our experience. See Smith *op. cit.*, p. 200: “We can have awareness of features of our own experience, not instead of an intentional directedness to worldly objects, but in addition to it”.

At least some non-representational features of experience are *phenomenal modifiers* in the sense that they make a difference to the way the concurrent mental episodes *feel* to us. Although phenomenal modifiers do not represent the world as being one way or another, they typically have an influence on the beliefs based on the content of the concurrent experiences. For instance, in a paper which defends representationalism against the objection of the case of blurred vision, Michael Tye claims that “[i]n the cases of seeing blurrily, one’s visual experience [...] makes no comment on where exactly the boundaries [of the object in front of us] lie”¹⁸. Having a blurred visual experience rather than a non-blurred one leads us to a certain kind of indeterminacy in the judgements based on the content of our representations. I defend the thesis that features of experiences such as being blurred are phenomenal modifiers of the content in the sense that they modify the way the content is felt, and *thereby* they ground beliefs that come along with the usual perceptual judgments.

How close the connection between the modified phenomenology of the representational elements is, and what the mental episodes represent the world as being are like, are matters of dispute. In the case of blurred vision, a representationalist may claim that the phenomenal character in question is connected to the fact that we represent the boundaries of objects as indeterminate, whereas the anti-representationalist can insist that there is difference between representing the boundaries of objects as indeterminate, as when we see a *fuzzy* object, and having a blurred perception that *feels as if the object is indeterminate* even though it does not represent it as indeterminate. Typically, a representationalist account of blurriness and analogous features will try to reduce the seemingly non-representational elements to ways the content represents¹⁹, whereas the anti-representationalist will argue that such features must be *primitive* – that is, non-reducible to or supervenient on elements of the content. I do not mean to enter this debate here, but I merely make the following conditional claim: *if* blurriness is a primitive phenomenal modifier, and so it is an ingredient of the “what it is like” to have an experience *e*, then it makes a difference for the *judgements* that we make on the grounds of having *e*, even though it is not an experience of the world as possessing cer-

¹⁸Michael Tye “Blurry images, double vision, and other oddities: New problems for representationalism?”, in Q. Smith and A. Josic (Eds.), *Consciousness: New philosophical perspectives*, Oxford, OUP (2003): 7-32.

¹⁹See, for instance, M.G.F. Martin “The transparency of experience’, *Mind & Language*, 17(2002): 376-425 or Tye’s paper quoted above.

tain features or others. Thus, by having a blurred perception that *feels as if the object is indeterminate* even though it does not represent it as indeterminate, we can judge the boundaries of the object as *appearing* indeterminate, or even as being indeterminate, if we don't realize that our vision is blurred. I now turn to the question of whether E_T is a primitive phenomenal modifier in this very sense.

Imagine you are looking at a red sphere in front of you. You will have a perception with phenomenal ingredients E_{RED} and E_{SPHERE} . If the sphere is moving at a visible pace, an experience with E_M is triggered, and you represent the sphere as moving. If not, you do not experience motion – that is, your experience lacks E_M (and something analogous goes in the case of qualitative change). But the perception of the sphere in both cases is had *while* you also feel that time is passing. If SWH is correct, any experience is dynamic, even when in its content features such as movement, changes, and the like are not represented, and even when the attitude is not that of perception, but that of a recollection, an act of imagination, or of conscious but non-perceptual thinking. We may not pay much attention to the fact that the mental episode that we are having is dynamic, but we may also direct our attention toward it, as happens with other phenomenal modifiers. We can notice how vivid a certain visual perception is, but we can also experience its vividness outside the focus of attention, as it were. Analogously, we can notice that time passes, but we can also have a dynamic experience while our attention is towards what is going on around us – as is often the case. What is it, then, that the phenomenal character E_T modifies? If the mental episode in question is a perception, the idea is that we have an experience that feels *as if* the world is dynamic. That is what makes it the case that even an experience of a sequence of discrete snapshots is judged to be occurring *while* time passes. If it is a recollection or some form of non-perceptual awareness, we have an experience that feels as if our mental life is dynamic. More generally, we experience reality as if it were dynamic, regardless of whether we represent movement, change, or other temporal features occurring somewhere. This modification of the way the representational content of all our mental episodes feels underlies our belief that time passes.

According to the view I am defending, E_T is a primitive phenomenal modifier. This is so because if E_T is a feature of any mental episode we have, it cannot be identified or triggered by any (combination of) worldly representational phenomenal characters. Therefore, it is a primitive feature of our experience – regardless of whether other phe-

nominal modifiers are. The fact that E_T is primitive does not entail that we cannot say anything further about it. In particular, it is possible to investigate whether there is a *cognitive mechanism* underpinning the phenomenology of the passage of time, and whether this mechanism is connected to other mental activities, such as the goings on of a non-perceptual stream of consciousness. If the hypothesis that the sensation of the passage of time is not given by what we represent in perception or imagination, because it is primitive, then the hypothesis of a cognitive mechanism independent of the perceptual system, but not isolated from it, seems plausible. After all, one could argue that one of the reasons for taking blurriness to be primitive is that it is due to a certain condition of our visual system which induces the vehicle through which our conscious experiences represent having intrinsic properties – properties that are independent of those constituting the representational content. Now, if E_T is a primitive phenomenal modifier, then the output of such a cognitive mechanism is both independent of the representational content of our mental episodes (it is primitive), and has an influence on it (it is a phenomenal modifier: we have experience that feels *as if* reality is dynamic). More interestingly, the influence of the feeling of the passage of time on the representational content may not be invariant. For instance, if the felt “pace” of the passage of time can be influenced or can vary through experiences, then there will also be a variation in the way the concurring mental episodes feel to us. A sensation of a slowed down time will make the perceived durations of the event represented longer – roughly as a vivid visual perception makes the perceived colors brighter, and a blurred vision represents the boundaries of things indeterminately.

These hypotheses about a cognitive mechanism underpinning the feeling of the passage of time are empirical, and can, at least in principle, be investigated within a larger framework that encompasses results for other cognitive and neural phenomena. Interestingly, there exists a large body of literature on the variational effects in *duration perception and time estimation*²⁰. In those studies, both the reports and the theoretical elaboration of the data often resort to the vocabulary of “time seems to slow

²⁰See, for instance, D. M. Carson “Temporal Distortions and the Ejection Decision”, *Flying Safety*, 55,6 (1999): 4-7, P.A. Hancock and J. L. Weaver “On Time Distortions Under Stress”, *Theoretical Issues in Ergonomics Science*, 6,2 (2005): 193-211, M. Wittmann, V. van Wassenhove, A. D. Craig, and M. P. Paulus “The neural substrates of subjective time dilation”, *Frontiers in Human Neuroscience* 4,2 (2010): 1-9, and J. Tipples “When Time Stands Still: Fear-Specific Modulation of Temporal Bias Due to Threat”, *Emotion*, 11,1 (2011): 74-80.

down / speed up” to describe or gloss duration misperception and time misevaluation, which are connected to certain conditions of stress, such as the perception of danger, the repetitiveness of stimuli, or the effect of drugs such as dopamine agonists. If theses (i) there is a distinctive phenomenology of the passage of time E_T , (ii) this phenomenology is dependent on a cognitive system that is independent of the elaboration of the representational content, and (iii) it can be influenced by the felt “pace” of its output are on the right track, the sensation of slowing down and speeding up of time is a different phenomenon from those of duration perception and time estimation – in spite of what is usually assumed in the literature.

We can exploit this distinction (which, to my knowledge, is never explicitly made in the literature) to test the phenomenal character view of the feeling of the passage of time. Consider Ian Phillips’ criticism of the internal clock model for explaining time estimation and duration perception, and his proposal of a different model based on the perception of the duration of external events relative to the amount of mental activity experienced²¹. According to the internal clock model, the effect of a spike in the dopamine level (as a consequence of a sudden perceived threat, for instance) is a speeding up of the internal pace-maker, which leads us to misperceive durations as being longer than they are. According to Phillips’ model, the spike causes an acceleration in mental activity, and hence the relative duration of external events is perceived as dilated. One reason that Phillips gives to prefer his view is that the internal clock view supports an unsatisfactory explanation of the developmental advantage of the “time expansion” effect. If durations are perceived always in relation to the amount of mental activity going on, it follows that in correspondence to a time expansion scenario, an unusually large amount of mental activity occurs – hence, our mental activity is *actually* (and not just phenomenally) faster than usual. This explains why pondering alternatives for action and reaction can be quicker (and more efficient, if not disrupted by other factors such as a mania). On the internal clock model, on the other hand, the speeding up of the internal pacemaker can explain a misperception of the duration of the external events as longer, but it is left unclear whether this would lead to a quicker preparation for action (and if so, how). Phillips explains this with an example in which he resorts to the “time seems to slow down / speed up” vocabulary. Here is the passage:

²¹ Ian Phillips “Perceiving the Passing of Time”, *Proceedings of the Aristotelian Society*, 113 (2013): 225-252, Phillips 2014 *op. cit.*.

Imagine that you are a caveman or -woman on the veldt. Scanning the horizon, you spot a sabre-toothed tiger heading your way. Then suddenly the world around you seems to slow down and the tiger appears to be running more slowly. How is this helpful? The tiger is not actually running any more slowly. And the illusion of time being drawn out gives you no extra seconds in which to flee.

We get a much more satisfactory explanation of what is going on if we consider how things look on a mental activity picture. Here the effect of the fear-based dopamine spike is to speed mental activity. That, in and of itself, is an adaptive response²².

It is not my aim here to establish which model is better placed to explain perception of duration, time estimation, and their distortions. What I wish to highlight is that neither model is able to provide an explanation of why a speeding up either of our internal pacemaker or of our internal stream of consciousness leads to a variation in how we *feel* time to pass while we are having these experiences. If the phenomenal character connected to experiencing a mental episode as a perception that lasts one second (say) is different from E_T – as it seems reasonable to maintain, unless we are skeptical about the very existence of a specific E_T – then there is no reason to think that a misperception of a duration of an event as longer than it is is also an experience of a reality in which “time slowed down”²³. Of course, there is a *logical* connection between the two representations of reality that such phenomenological characters suggest. Once we reason about the speed of a certain movement that we have misperceived as lasting a certain amount of time that *we know* is more than it usually takes for the movement to occur, we conclude that the movement must have seemed to be slowed down (absolutely speaking, or relative to our internal flow of thoughts). But it does not follow from the fact that we can perform (or from the fact that we do perform, for that matter) this reasoning that *when* we misperceive the duration as longer than it is we also have a “time is slowing down” sensation. If there is such a sensation, as it seems phenomenologically appropriate to claim once we accept that E_T is a specific aspect of

²²Phillips 2013 *op. cit.*, p. 246.

²³The situation may be different with respect to time estimation, in so far as it relies on retrospective judgement based on memory, rather than on direct perception of duration. If the awfully boring weekend seemed to last a week, it does not follow that for the whole weekend we had a “time is slowing down” sensation.

our experience, then it cannot be originated by the misperception of a duration as such. It is, rather, the other way around: we misperceive the duration of a certain event as longer (or shorter) than usual because we are experiencing an altered sensation of the passage of time *while* we perceive these durations.

This picture does not conflict with either the internal clock model or the flow of consciousness model, in the sense that it can be seen as a completion of either. The feeling of the passage is independent from the representational content of the experience, but it may be altered by factors, such as an unusual amount of conscious activity or an alteration in the pace of the internal clock (which in turn can be influenced by drugs or mental episodes such as a fit of panic). As a phenomenal modifier, E_T is felt as a feature of a mental event with a certain content: for instance a perception e of an event as having a certain duration. If e has a “slowed down” E_T , the perceived duration of the event will feel differently and then be evaluated as longer than usual: the perception is *felt* slowed down, and thus its duration is evaluated as expanded. Again, the analogy with other phenomenal modifiers features may help. If we are experiencing a very vivid visual experience, the experienced redness of an apple may appear as “unusual”. As a phenomenal modifier, vividness is felt as a feature of a mental event with content C_{RED} . And if the perception is more vivid than usual, the redness represented, too, will feel brighter than usual²⁴. This concludes the core of my account of the feeling of the passage of time. In what follows, I explain how the primitive phenomenal modifier approach solves the intelligibility problem.

²⁴Note also the focusing our attention on the passage of time has a detectable effect on the estimation of durations, as is to be expected if the sensation of passage is a phenomenal modifier. In “Attention to the Passage of Time” (Ian Phillips *Philosophical Perspectives*, 26, 1, Philosophy of Mind (2012): 277-308), Phillips considers the influence of attention to the passage of time on duration evaluation. Roughly, adding a timing task to a non-timing task makes judgments of duration more accurate, since without the timing task, duration judgments tend to be shorter. In accordance with his theory of the experience of the passage of time, Phillips characterizes attention to time as an increase in the amount of concurrent conscious mental (non-perceptual) activity, hence as a form of internal and non-perceptual attention. Among other advantages, this hypothesis allows us to explain why when a lot of unconscious processing goes on (for example, when we are engaged in a difficult task) time seems to pass quickly, while when a lot of conscious processing goes on (for example, when we are engaged in a boring task) time seems to pass slowly. I have no space here to discuss the connection between this aspect of temporal experience and the present view. Suffice to say that if attention to the passage of time is construed as attention to the phenomenal modifier E_T , it is a form of internal, non-perceptual, attention.

3 The illusion of the passage of time

If E_T is not a worldly representational feature of our experience, the illusion that, according to the anti-realist, besets us should not be understood analogously to the way in which our experiences represent something in the world that is not there. In other words, it is not a perceptual mistake, a situation in which we are led to take a representational ingredient of our experience as veridically representing a certain feature of reality. Indeed, the content whose phenomenal character E_T modifies may be (and often is) veridical. However, if my last remarks are on the right track, by influencing the way an experience e feels, a phenomenal modifier E_G may also influence the beliefs based on the representational content of e . This, in a way, may seem surprising. After all, the contribution of a phenomenal modifier is not a representational element. However, it may well be that mechanisms underpinning perceptual judgments can be affected by non-representational concurring feelings²⁵. Again, it is interesting to study empirically how the interactions work; but here we do not need to make a detailed hypothesis. What is interesting here is that it is possible to *mistake* the effect of a phenomenal modifier on an experience with representational content C_F as a feature of the content itself. For instance, we may mistakenly attribute the brightness of a certain shade of red of an apple in front of us to its surface in normal conditions of illumination, rather than to the vividness of the experience. My claim is that the false belief (assuming anti-realism) that time passes is an analogous form of mistake. The fact that the way an experience e is felt is modified by E_T makes it the case that e is felt as if dynamic. And if so, we are liable to take e 's content C_F to represent the world as possessing a “dynamic” version of F , rather than merely F . In other words, the illusion of the passage of time is the illusion of taking the influence of a phenomenal modifier on the way an experience e feels as being part of what e represents²⁶.

²⁵L. Sizer (“Towards A Computational Theory of Mood”, *British Journal of Philosophy of Science*, 51 (2000): 743-769) argues that we have empirical evidence for the fact that moods, while not representational, can influence representational contents.

²⁶An anonymous referee notes that, also with respect to the origin problem, the phenomenal modifier view is in trouble. Simply claiming that our experiences are modified in a way that gives rise to such a belief is not an explanation of why they are modified in this way. The quick answer to this is that E_T just is the phenomenal character that gives rise to such a belief – as already pointed out. However, I understand that the objections go deeper than this. One may grant that it is trivial that E_T when construed in representationalist terms gives rise to the belief that reality possesses T , but it is not trivial that a non-representationalist construal of E_T gives rise to such a belief. I am ready to bite this bullet, and the remarks that follow should

The phenomenal modifier's solution to the intelligibility problem may seem *ad hoc*. For one thing, I have not said anything about *why* we take the influence of the phenomenal modifier E_T on the content as part of the content. We may fail to realize that the brightness of a color is due to an unusual vividness of our experience, but we do not do so systematically; however, we do *systematically* take our perceptions and other mental episodes as representing a dynamic world. An obvious thought is that, if **SWH** is correct and every mental episode, no matter its representational content, has E_T , this is not surprising. By analogy, experiencing a constantly vivid visual perception may lead to a systematic impairment of our judgment of the actual brightness of perceived color. If the analogy is roughly on the right track, and the misjudgment in the blurriness case is due to the fact that we do not direct our attention toward the phenomenal modifier of blurriness, then directing our attention toward the feeling of the passage of time should allow us to make the idea of a veridical perception of the temporal features of the world (assuming anti-realism) more intelligible. Is this so? Certainly, it seems very difficult, in the case of the passage of time, to “filter out” with the imagination the effect of the modifier, as we may imagine how the redness of an apple would look in a very vivid experience if the illumination were normal. That is, it is hard, if not impossible, for us to imagine what it would be like to have an experience that does not feel dynamic. But this is not surprising, given that E_T does not influence this or that specific type of representational ingredient (color, shape, and so on), but rather the way the representational content as a whole is felt, and given that it modifies all mental episodes.

Yet, we have the conceptual resources to distinguish, in principle, between ingredients of the phenomenology of our experiences that are due to a phenomenal modifier and worldly ingredients due to the representational content. Thus, even if our imagination is limited here, we can at least have an idea of *the kind of capacities our imagination lacks* – that is, what would be required in order to have an experience of a non-dynamic reality (that is, a veridical perception, assuming anti-realism). By representing the world with a content that is phenomenally modified by E_T , we *feel* as if what we represent is related to something that *exceeds reality as a whole*, namely the fact that reality as a whole is dynamic. It is as if all our representations whispered “I am about to become older” in an aside to the subjects who are having them²⁷. The

provide at least a sketch of such a non-trivial explanation of the origin of the belief.

²⁷I take the metaphor of the “whispered aside” from David Kaplan (“Demonstratives. An Essay on the Semantics, Logic, Metaphysics, and Epistemology of Demonstratives and Other Indexicals”, in Almog, J.,

metaphor of “exceeding reality as a whole” and the metaphor of the “whispered aside” can be given an explicit reading. The dynamic element feels as if what I am representing is related to something that *exceeds reality as a whole* in the sense that it is an intrinsic feature of the vehicle that influences the way it feels to have any experience, and it can communicate the content “will become older” precisely because it is a feature of the vehicle of the content, and not a represented feature of reality.

Finally, and speculatively, we can suppose that considering the variation in the “pace” of the flow of time that we experience in particular situations may help us to have a firmer grasp of how E_T modifies the phenomenal characters of all our experiences. As we can remember situations in which “time seemed to slow down”, we can imagine situations in which the sensation of the passage of time is so disrupted that our experiences no longer feel as if reality is dynamic²⁸. As I said, these last considerations are speculative, and I am not sure that we can *imagine* what it would be like to have an experience that lacks E_T . However, the *conceptual* resources provided by the phenomenal modifier view of the feeling of the passage of time do suffice to make the distinction between illusory experience of the passage of time and non-illusory intelligible²⁹.

Perry, J. and Wettstein, H., eds., *Themes from Kaplan*, Oxford, OUP (1989): 581), who uses it – in a completely different context – to gloss the descriptive elements of the ‘dthat’ operator (roughly, the demonstrative ‘that’).

²⁸David J. Velleman (“So It Goes”, *The Amherst Lecture in Philosophy* 1: 1-23(2006): 13-4) envisages a case in which “time would no longer seem to pass” by linking the sensation of the passage with that of an enduring self. If the phenomenal modifier view is correct, we may be – with respect to the passage of time – in a situation similar to the one with respect to a fourth spatial dimension. We have the conceptual resources to describe (mathematically) and reason about a fourth spatial dimension, but when it comes to imagining it, the best we can do is to look for analogies that give us an idea of what kind of capacity we are missing here.

²⁹The phenomenal modifier’s explanation of the illusion of the passage bears some similarity to the idea that the sensation of the passage which concurs with a perception that has a certain content about movement and change is somehow “projected” onto those facts. Indeed, Boghossian and Velleman *op. cit.*, on which I am piggybacking, maintain a projectivist view about colours as an alternative to representationalism. I am not against such a terminology, in so far as it is integrated into a larger view along the lines of the one sketched here. However, it should be clear by now that the “projected” feature has nothing to do with the sensation of movement or of change around us. Hence, my view is not projectivist in the sense in which Le Poidevin *op. cit.*’s is, who seems to maintain that what we project onto reality is something like a sensation of motion or change. My view bears also similarity with Aydede’s adverbialism about sensory pleasure (Murat Aydede “A Contemporary Account of Sensory Pleasure” in Lisa Shapiro (ed.) *Pleasure: A History*, Oxford, OUP (May 2015), v1.6).

4 Conclusions

Although, as I have argued, the deflationist view according to which there is only the naive *belief* that time passes, and that there is no specific sensation of its passing is wrong, the deflationist is right in maintaining that the sensation of passage does not correspond to a representational element of our experience. The feeling of the passing of time should be rather understood as a modifier of our phenomenology, which is primitive and it influences the judgements we make on the ground of what we experience.