

## Passage, Becoming and the Nature of Temporal Reality

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**Abstract** I first distinguish several notions that have traditionally been conflated (or otherwise neglected) in discussions of the metaphysics of time. Thus, for example, I distinguish between the passage of time and temporal becoming. The former is, I maintain, a confused notion that does not represent a feature of the world; whereas a proper understanding of the latter provides the key for a plausible and comprehensive account of the nature of temporal reality. There are two general classes of views of the nature of temporal reality; proponents of particular views in both classes attempt to account for the phenomenon of temporal becoming in terms of qualitative change. I argue that any such account – in terms of change – is irredeemably problematic. And so I propound a different account of temporal becoming, based on the notion that temporal reality is transient, which provides the means to characterize intuitively and vividly the significant effects of time on the metaphysical nature of the world.

**Keywords** Time · The metaphysics of time · Passage · Becoming

### Preliminary Metaphysical Distinctions and Objectives

It seems beyond credible doubt that time exists and that the very presence of time in the world has certain effects on the way the world is. *Temporal reality* is, collectively, those marks upon the world that arise specifically as a consequence of the existence of *time*. An account of these marks, considered at the most general and elementary level, is a metaphysical account of the *nature of temporal reality*. The philosopher of time, then, might endeavor to provide an account – a theory – of the *nature of time* itself or of temporal reality or of some particular feature of either. A theory of the nature of time itself would provide answers to the questions of *what time is* and *which properties this thing that is time has*. A different kind of theory – one regarding the nature of temporal reality – would furnish answers to the question of *how the world is as a consequence of the existence of time*. These two types of theories are independent of one another. As explained below, a particular theory of time need not have any consequences for a theory of temporal reality (and vice versa).

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I propose a very simple answer to the question of what time is and, thus, a very simple theory of time. Time is a *sui generis* entity – a feature of reality – namely, *that feature that renders change possible*. One might object immediately that: (1) the existence of objects; (2) the existence of properties; (3) predication (or instantiation) itself; (4) the fact that some entities do not bear all their properties necessarily; also render change possible. In a certain sense, this is true, for each of these things (or conditions) is required for change actually to occur; however, this objection overlooks the fact that there is some other thing, in addition to each of these, needed if change is to occur – or even be possible. That thing is time. So although it might be more precise (though, it seems, more verbose and less intuitively clear) to suggest that time is that thing – *independent of any object, the properties that object bears and how it bears them* – that renders change possible, I prefer the more succinct suggestion, for it makes patent the direct connection between time and the very possibility of change.

Given this notion of time (as the feature of reality that renders change possible), some properties are plausibly attributed to this thing that is time: time is an objective entity, that is, one that exists independently of any conscious subject; it is simple in that it lacks constituents; it seems to be an abstract, rather than concrete, entity in that it is not located in space, is itself immutable, and seems to be a necessary existent. Furthermore, time is a particular, in that it is not the sort of thing that can be instantiated or be properly thought to recur.

The theory of time that results from this guiding notion and its consequences, although intuitive and perhaps cogent, might be deemed unsatisfactory, for it is not, in itself, philosophically rich and fecund. In particular, this theory appears to stultify concerns over the *passage of time*, for if time is simply the feature of reality that renders change possible, then it is obvious that this sort of thing does not and cannot pass. Such criticism is, however, not apt, for the most familiar and engaging substantive issues in the metaphysics of time concern not time itself, but the nature of temporal reality.

As noted above, a theory of time need not entail any particular account of the nature of temporal reality. Given the guiding notion that time is the feature of reality that renders change possible, certain features of time are entailed and others may be inferred, to form the simple theory of time just adduced. It does follow from this notion of time that there is at least one *moment*, for without such there could be no change of the familiar sort; but it does not follow, from this notion of time itself, how many moments exist – a single one, to wit, the present moment, or an infinite number. It does not follow, merely from the simple theory based on this notion of time, either that there are past, present, and future moments or that there are moments, without intrinsic temporal properties, ordered by the earlier (later) than relation. Nor does it follow, assuming there is more than a unique moment, that there are moments both preceding and succeeding the present moment or only moments preceding (or succeeding) this one. Moreover, if the past, present and future are thought to be things distinct from moments (or collections of such) the question of whether there is a past, present and future (or merely a past and a present or just a present) is also left unresolved by this simple theory of time. All these issues are independent of a theory of time; what is needed to settle them is an account of the nature of temporal reality.<sup>1</sup>

<sup>1</sup>Note that the independence of these issues from a theory of time does not arise merely as a result of the minimal theory that I propose. Suppose one does not take time to be the feature of reality that renders change possible, but rather, as the relationalist does, the network of temporal order relations between events. Given this theory of time itself, one still needs an account of temporal reality, for one needs to resolve the issue of how extensive this network is – whether it is growing or is complete. If one accepts, as part of relationalism, that the network is complete, one still needs to resolve the issue of whether there are events in the network that are past, present or future or whether the network consists only of events later (earlier) than one another.

There are two general classes of views of the nature of temporal reality: views that take temporal reality to be *metaphysically heterogeneous* and those that take it to be *metaphysically homogeneous*. On heterogeneous views, there are genuine metaphysical differences among moments preceding and succeeding the present one; these differences might be with respect to (1) whether and how things exist at those moments, (2) what temporal properties those things bear or (3) the very ontological status of moments preceding or succeeding the present one. On homogeneous views, there are neither qualitative temporal nor ontological differences between this moment and moments preceding and succeeding it: the ontological status of all moments is the same and, hence, there are no metaphysical differences in temporal reality, either with respect to whether or how things exist at moments before or after this one, or in the temporal properties those things that do exist bear.

One's view of the nature of temporal reality, that is, whether one takes it to be metaphysically homogenous or heterogeneous, determines one's account of temporal becoming. *Temporal becoming* is the metaphysical phenomenon that underlies the fact that each moment appears novel to one who experiences it and that successive uses of temporally indexical expressions, such as 'now,' are possible and have distinct referents. Although the reality of this phenomenon is as indubitable as the existence of time itself, exactly how this phenomenon is to be explained has been the crux of much debate in the philosophy of time. Temporal becoming itself has often been confused with the putative phenomenon of the passage of time, and so debates over temporal becoming have often been conflated with debates regarding passage.

Many discussions of the metaphysics of time are opaque, for often the focus of the theory being propounded within the discussion is misrepresented (or is simply indiscernible). For example, many discussions that purport to be about time itself are intelligible only if construed to be about the nature of temporal reality and discussions that seem to make sense only as regarding some phenomenon merely associated with time are presented as if they concern time in itself. Such confusion is apparent throughout the history of the philosophy of time.

Thus, Aristotle's theory of time, which maintains that time is "the number [i.e. measure] of movement [i.e. change] in respect of before and after. Time is not movement [i.e. change], then, but the respect in which movement [i.e. change] is numerable [i.e. measurable]," (Aristotle 1938: Bk. IV, 219b) seems the basis of an account of *duration*, rather than an account of what time itself is. Similarly, Leibniz asserts that "Time is the order of non-contemporaneous things" (Leibniz 1715) and founds his account on the presupposition that the non-contemporaneous element that "contains the ground" for another precedes the latter. This account is the basis of or inspiration for the so-called *causal theory of time*, but it is the basis not of a theory of time itself, but of an account of *temporal order*. Contemporary discussions among partisans of the A-theory and the B-theory, the tensed and tenseless theories, and the proponents and opponents of passage are, without exception, framed in terms of the nature of time, but the bone of contention in these distinct debates is not what or how time is, but rather the nature of temporal reality.

Therefore, if a satisfactory metaphysics of time is to be developed, it is important to distinguish a theory of time from a theory of temporal reality. This is necessary in order to be able to articulate adequately the substantive issues that do, and have traditionally, divided philosophers of time. If one asserts too robust of an account of time itself, then the need for an account of temporal reality is obscured. However, I discourage such robust theories, for, insofar as there is indeed change in the world, there is one thing that philosophers should be able to agree on, to wit, that time is real. If they are to agree on this point, what is needed is as spare an account of time as can be formulated that preserves the essence of this thing that is such a conspicuous feature of the world and yet induces so much controversy when its effects

are considered. On my own view of the metaphysics of time, the distinction between a theory of time and a theory of temporal reality is significant; for it is the theory of time I propose that enables me to characterize a notion of *atemporality* – existing outside of time – that is crucial to my explication of the nature of temporal reality.

It is also important, for the purpose of developing a satisfactory metaphysics of time, to distinguish the notion of temporal becoming from that of the passage of time. The conflation of these notions has been the source of much muddled discussion. The passage of time is, I contend, a confused notion that does not represent a feature of temporal reality; whereas a proper understanding of temporal becoming provides the key for a plausible and comprehensive account of the nature of temporal reality.

In what follows, I distinguish the putative intuition of passage from the awareness of temporal becoming, and then consider different ways of accounting for the phenomenon of temporal becoming. Both proponents of the homogeneity of temporal reality and those who take it to be metaphysically heterogeneous propose to account for this phenomenon in terms of qualitative change. I maintain that any such account – in terms of change – is irredeemably problematic. Hence, I propound a different account of temporal becoming, one that provides the means to characterize vividly the heterogeneity of temporal reality and is based on the notion that temporal reality is *transient*.

### Passage and Temporal Becoming

A certain basic sense of the nature of temporal reality is widely held; this sense is frequently described as the *intuition of passage*. Hence, George Schlesinger, a proponent of the heterogeneity of temporal reality, accepts as a guiding intuition when developing his account of the nature of temporal reality that time passes or moves. To corroborate this intuition, he states that: ‘From the earliest antiquity and right throughout the Middle Ages up to our own times, people of all degrees of sophistication have regarded it as one of the most central features of existence that time moves, so that events are carried from the future toward us and then recede further and further into the past’ (Schlesinger 1982: 501). Schlesinger, moreover, adds that this intuition (which he characterizes as a feeling) ‘is not some insignificant part of our experience but rather a central one which is with us all the time,’ and ‘is an ever present and important feature of our existence’ (Ibid.: 515).

These claims are typical for one wishing to defend the metaphysical heterogeneity of temporal reality – but they are just as commonly made by those who reject this view. Thus, J.J.C. Smart, a well-known advocate of the homogeneity of temporal reality, asserts that ‘we commonly think of time as a stream that flows or as a sea over which we advance’ (Smart 1967: 126) and that ‘certainly we *feel* that time flows.’ He then, however, adds, after the latter comment, what every proponent of the homogeneity of temporal reality adds after conceding this purportedly indubitable feature of our experience of time: ‘but I want to say...that this feeling arises out of a metaphysical confusion’ (Smart 1980: 3). It is important to recognize, then, that both those who defend and attack the heterogeneity of temporal reality maintain that there is a certain, compelling sense concerning the nature of temporal reality arising from our experience as beings in time; furthermore, both sorts of philosophers accept this sense as an intuition of passage.

This notion of the passage of time has traditionally been conflated with the notion of temporal becoming. Temporal becoming, as stated above, is an indubitable feature of temporal reality; it is *whatever metaphysical phenomenon underlies*: (1) the phenomenological novelty of each moment, that is, the continuous sense that one has not encountered *this* state of the

world (despite gross qualitative similarities it may share with many others) and (2) the fact that successive uses of temporally indexical expressions (such as ‘now’) are possible and have different referents. As such, merely acceding to the reality of temporal becoming does not in itself commit one to either the homogeneity or the heterogeneity of temporal reality. Attributing passage to time, however, is a particular attempt to characterize temporal becoming, one that (as is seen below) presupposes the metaphysical heterogeneity of temporal reality. Hence, it is better, in order to maintain (at this point) neutrality on the issue of whether temporal reality is metaphysically homogeneous or heterogeneous, to characterize that basic sense of temporal reality that partisans of both general views of its nature acknowledge, as the *awareness of temporal becoming*, rather than the intuition of passage.

Given the unanimity of philosophers of time regarding the presence of this basic sense, it has a significance that cannot be neglected when attempting to characterize the nature of temporal reality (this point, too, is universally accepted). Note that what is most needed here from the philosopher of time is not an explanation for the *experience* of temporal becoming, but a characterization of the basis of that experience (whether that basis is inherent or extraneous to temporal reality per se). A simple explanation of one’s experience of temporal becoming can be inferred from such a characterization: one experiences temporal becoming because, as a being in time, one is aware of the phenomenon that constitutes temporal becoming. Traditionally, there have been two general strategies for illuminating this phenomenon; which strategy one employs has been determined by one’s antecedent views of the nature of temporal reality. Hence, there is a general strategy employed by those philosophers who take temporal reality to be metaphysically homogeneous and one employed by those who take it to be heterogeneous. Both sorts of philosophers, though, attempt to explain the real metaphysical basis of the awareness of temporal becoming in terms of some literal sort of change.<sup>2</sup>

The motivation for the strategy employed by theorists of homogeneous temporal reality is clear: since the proponent of this view of the metaphysics of time thinks that there are no ontological or qualitative differences in temporal reality from one moment to the next or, at a specific moment, in the metaphysical nature of the moments that precede or succeed it, such a theorist must claim that what appears to be the passage of time – and what is the real basis of temporal becoming – is merely an artifact of the conscious subject, or his habits, and so has nothing to do with the nature of temporal reality per se.

Thus, Smart attempts to account for the awareness of temporal becoming – and to debunk the passage of time – by claiming that one’s primitive sense of temporal reality (what he takes to be the intuition of passage) arises from one’s failure to appreciate certain features of one’s language. He maintains that expressions such as ‘is past’, ‘is present’ and ‘is future’, which appear to be monadic predicates, are actually token-reflexive terms that,

<sup>2</sup>One exception to this is perhaps Clifford Williams. In Williams (1992), he purports to give an account of one’s awareness of temporal becoming in so-called *B-terms*, that is, in a way that does not make recourse to qualitative change. Williams’ position, however, is difficult to evaluate, for the following reasons. Although he claims to be a proponent of the *B-theory*, a specific theory among the class that posits the homogeneity of temporal reality, he explicitly rejects the stasis, permanence and tenseless existence of all events in time that are essential to this view (Williams 1992: 125.). He also asserts that a certain *inexorability*, the capacity to sweep one along against one’s will, is of the very nature of *B-time* [Page 128] and that the movement of time is compatible with the *B-theory* [Page 131] without any explanation whatsoever of how these things could be so. Furthermore, at several points in his discussion, Williams draws on the putative analogy between time and space to illustrate or support claims he makes for his version of the *B-theory*. Yet he explicitly acknowledges that time and space are intrinsically different and that one should expect asymmetry in one’s experiences of them [Page 130]. Therefore, Williams seems to have both an idiosyncratic understanding of the *B-theory* and to address inadequately temporal becoming, the bone of contention.

when used, express a relation between the referent of the grammatical subject (for example, a particular event) and the sentence token in which the expression occurs. Smart suggests that ‘a failure to recognize the token-reflexiveness of words like “past,” “present,” and “future” can lead us to think wrongly of the change from future to past as genuine change, like the change in position of a boat which floats down a river’ (Smart 1967: 127).

D.H. Mellor, the best-known contemporary proponent of the homogeneity of temporal reality, proposes a different explanation of the ostensible passage of time. The basis of his account is the supposition that we have tensed beliefs, that is, beliefs whose truth-values change over time. According to Mellor, we are continuously changing our tensed beliefs in order to keep them true – for they are constantly changing their truth-values – and this on-going process is the psychological fact that underlies the intuition that time is passing. Hence, our different beliefs from moment to moment ‘is the psychological reality behind the myth of tense, the myth of the flow of time. The reality is the changing truth conditions of true token-reflexive beliefs; the myth results from mistaking these beliefs to have non-token-reflexive contents, and so to correspond to real movement along the *A* series [the series of moments or events bearing the temporal properties of pastness, presentness and futurity], when in reality they do no such thing’ (Mellor 1981: 116).

Smart’s suggestion regarding the source of one’s fundamental sense of the nature of temporal reality is farfetched. For surely this sense arises not from a failure to consider the function or semantic values of certain temporal expressions (in English), but from the very experience of being in a world in which time is real or, if not this, from reflection on the natures of time and temporal reality. Furthermore, if Smart were right, then conceding the indexicality of some temporal expressions<sup>3</sup> should inhibit the sense concerning the nature of temporal reality that is supposed to be fostered by the failure to understand the actual function of these expressions; however, it does not, nor does it seem possible that this sort of parochial linguistic consideration could subdue what is such a basic sense of the metaphysical nature of the world. As for Mellor’s suggestion, even granting that we engage in the sort of activity he describes (which would surely keep us very busy), it is not at all clear how this activity would – or even could – give rise to the intuition that the world is such that time passes. In fact, the sort of activity described by Mellor would seem to be posterior to or a consequence of temporal becoming and not, as Mellor contends, the phenomenon that underlies the intuition of passage in a temporally homogeneous world, for this account provides no explanation whatsoever of exactly *why* a token belief that this is July 18 is true today and false tomorrow.

The two basic problems confronting the proponent of the metaphysical homogeneity of temporal reality when he attempts to account for the real basis of the awareness of temporal becoming are evident in the accounts just considered. Since the proponent of homogeneity must ground temporal becoming in terms of change in something extraneous to temporal reality, for example, in terms of psychological or linguistic changes, such an account must, it seems, render one’s basic sense of the nature of temporal reality dependent on subjective features of the world – one’s own psychology or on one’s appreciation of certain linguistic phenomena.

But, upon reflection, the fact that time itself is an objective feature of reality, to wit, the entity that renders change possible – an entity that would exist if there were no conscious beings, for certainly *change*, in all its diverse manifestations would not cease to be possible if there were no conscious beings – provides some reason for thinking that a process so intimately associated with time as is temporal becoming is itself an objective phenomenon. This point does not beg the question against a theorist, such as Smart, who attempts to explain temporal

<sup>3</sup>This is a concession that I believe should be made.



becoming in terms extraneous to time itself, for it is based on the claim, which partisans of both accounts of the nature of temporal reality accept, that time is a genuine feature of reality. It is this claim itself that suggests the minimal effects to which the existence of time gives rise that even proponents of the homogeneity of temporal reality acknowledge, such as the existence of moments, are objective features of the world. Insofar as temporal becoming is related to these effects – and, perhaps, accounts for them – it seems to be an objective phenomenon. Therefore, without having provided any reason for thinking that temporal becoming is, in fact, merely projected onto the world by one's own personal experience (and, hence, would cease to be if there were no one to project it) this sort of strategy, on which temporal becoming is or is based on features of one's subjective psychology, is implausible and seems unpromising.

There is, moreover, a greater problem for subjective accounts of temporal becoming. If one attempts to elucidate and ground temporal becoming in terms of changes in psychological states (changes in one's beliefs, for example) from one moment to the next or in virtue of some linguistic phenomenon, for example, the alleged fact that one's use of particular expressions are token-reflexive and, thus, express different relations to events at other moments, then one is merely presupposing and taking recourse to the very metaphysical phenomenon for which one is purporting to provide the basis. For if temporal reality were homogeneous, then there is no reason to think that one would ever be aware of a moment other than a single one, to wit, *this* one, and, hence, that one's psychological state would differ at all. Psychological accounts of temporal becoming of this sort presuppose that one has or is aware of different mental states from moment to moment, but leave wholly unexplained *why* one becomes aware of different moments (or why one is aware *at* different moments). More precisely, such accounts provide no explanation for why one is *not* aware of a certain mental state at a single moment for one's entire existence. Or – what is essentially the same point – if temporal becoming were explicable in terms of the token-reflexivity of certain expressions, one would still be in need of an explanation for why it is the case that successive uses of an expression are simultaneous with different sets of events, that is, why successive uses of an expression by a single speaker are even possible and how they occur at distinct moments.

Thus, subjective accounts of temporal becoming provide no account of the *metaphysical impetus* for one's awareness of distinct moments (in succession). Proponents of the homogeneity of temporal reality acknowledge the reality of temporal becoming, which they take to be awareness of some sort of genuine change, but ultimately try to reduce this phenomenon to the awareness of change in something other than temporal reality per se. However, to acknowledge temporal becoming and to attempt to explain it in terms of changes of these sorts – while denying that there is a genuine objective metaphysical impetus for these changes – borders on incoherence and seems, at best, to presuppose the very phenomenon one is supposed to be explaining.<sup>4</sup>

The proponent of the homogeneity of temporal reality, conceding these problems with subjective accounts of temporal becoming, might maintain that temporal becoming is indeed an objective feature of the world, one grounded on and explicable in terms of a patently objective phenomenon, to wit, *causation*. Causation, however, does not provide the means for an adequate account of temporal becoming. If one were to stipulate that an effect

<sup>4</sup>There may be other, more subtle, problems for these subjective accounts of temporal becoming – regarding one's continuous awareness of his mental states from moment to moment and also one's ability to act (and, hence, use language) – if the homogeneity of temporal reality entails that no ordinary individual exists in time entirely at a single moment. And I argue below that this account of temporal reality does indeed entail this.

never precedes its cause<sup>5</sup>, one might indeed have the means to explain why events subsequent to this moment cannot be perceived (on the assumption, of course, that perception is a causal process) or why one is aware only of events prior to (or contemporaneous with) the present moment. But these features of our temporal experience are ancillary to those that are to be illuminated by an account of temporal becoming. Consider, for instance, the phenomenological novelty of each moment (the continuous sense that one has not encountered *this* state of the world); this feature of our temporal experience is surely *caused* – but *by what* is exactly the point to be illuminated. Hence, the proponent of the homogeneity of temporal reality is forced to propose that temporal becoming is caused by the appreciation (or lack thereof) of linguistic phenomena or the behavior of conscious subjects. Causation, in itself, is not the basis of temporal becoming; it is too general of a phenomenon to provide insight into the specific feature of the world that requires illumination.

There is, however, another way of accounting for temporal becoming; one that attempts to take the metaphor of passage much more seriously and even tries, in the characterization of the view, to impart a sense of a sort of motion of time. This is the view that all events (or moments) move towards (and then away from) the present moment or the view, similar enough for present purposes, that there is a moving NOW that courses over the array of events in (or moments of) time. According to this view, all events in time – past, present and future – exist, but a future event approaches the present moment (the NOW), coincides with it for an instant as a present event, and then recedes, becoming a past event (or, the moving NOW passes along the events of time, towards future events, briefly making an event present before its subsequent absence renders it past).

Of course, time – this feature of reality that renders change possible – cannot itself move. It is best, then, to divest this account of temporal becoming of the idea of literal movement. Even doing this, one may take the metaphor of passage seriously, not, however, by attributing changes in location to moments or events, but by, nonetheless, attributing genuine changes to them. Traditionally, this has been done by assuming that at each moment only that moment, or the set of events occurring then, is (or becomes) present and, moreover, that future events become present and then past. On this account, the awareness of temporal becoming is thought to be a sense of genuine change, and to this extent it is similar to the accounts of the proponents of the homogeneity of temporal reality considered above. However, whereas on those accounts, the changes were in features of the world extraneous to temporal reality, the changes on this account are explicitly temporal: moments of or events in time take on and then lose distinct temporal properties. This account, then, clearly posits a metaphysical heterogeneity throughout temporal reality.

These differences enable one who proposes this account to acknowledge *qualitative* differences between the past, present, and future: the present moment, bearing the property of presentness, is what is; a past moment, bearing the property of pastness is what was; and a future moment, bearing futurity, is what will be. But what must be noticed is that on this account there is a significant *ontological* uniformity throughout temporal reality. Although future moments, events or objects are, by their very nature, not yet present, they nevertheless bear a property, to wit, the property of being future, and, likewise, past moments (events or objects), which no longer are present, are supposed to have the property of being past. If one supposes that in order for an entity to bear any property whatsoever that entity must exist, then one must admit that past, present and future moments, events, or objects all have the same ontological status, that is, they all EXIST and

<sup>5</sup>Many philosophers interested in causation are reluctant to make this stipulation. For the reasons of one influential theorist, see Lewis (1973).



so ARE<sup>6</sup> equally real. One may, however, deny this ontological uniformity and insist that only the present now *exists*, whereas past entities and future entities, although they bear properties, merely *have existed* or *will exist*; in other words, one may concede that these past and future entities do not exist in a full-blooded sense, and yet maintain that they nevertheless bear properties. However, one who denies the ontological uniformity of temporal reality and yet defends an account of temporal becoming in terms of qualitative changes through time is, then, forced either to leave the truths about temporal reality without grounds<sup>7</sup> or admit some sort of dubious distinction between levels or varieties of *existence simpliciter*.<sup>8</sup>

There are several objections that have traditionally been leveled at this account of temporal becoming on which time is supposed to pass and this passage is characterized as qualitative change among moments. The three most basic objections have been discussed often throughout the modern literature; the first is (1) that the moving NOW cannot be adequately characterized, the second (2) that if time passes, it must do so at a certain rate, and this notion of a rate of passage is “absurd,” and the third (3) that this sort of account of temporal becoming leads to an infinite regress of temporal series of moments (or events). I have discussed these problems in detail elsewhere and so will forgo similar discussion here.<sup>9</sup> Here I merely assert that none of these objections is compelling for each is either based on too literal an interpretation of passage as movement or on philosophical confusion (or both).

These objections are often taken to impugn the more general view that temporal reality is metaphysically heterogeneous, but this is a mistake based upon the failure to distinguish an account of temporal reality – a more broad metaphysical theory – from an account of a particular metaphysical phenomenon, to wit temporal becoming. These classic objections, then, do not in themselves provide any reason for rejecting this passage account of temporal becoming (nor, more generally, the heterogeneity of temporal reality). Nonetheless, there is good reason to reject this account of temporal becoming on the grounds that it founders on some basic metaphysical principles. I contend that these grounds also undermine any account of temporal becoming in terms of change, regardless of whether it takes temporal reality to be metaphysically homogenous or heterogeneous.

## Objections to Temporal Becoming as Qualitative Change

The problems for accounts of temporal becoming on which this phenomenon is supposed to be a sort of qualitative change arise in light of two simple philosophical principles, to wit, (1) what

<sup>6</sup>These verbs must be interpreted as tenseless, if one is even to make sense of the claim. By ‘tenseless,’ I mean *without tense*, that is, making no distinction between past, present and future. I am explicit here, for some philosophers take ‘tenseless’ to mean *disjunctively-tensed*, that is, indicating a disjunction of the past, present and future tenses. (Thus, an object is real tenselessly, in this latter sense, if it has been real, is real or will be real.) This later usage is not only misleading, but also, in many contexts, raises significant problems (one need only look to the text above for an example of such a context). Throughout this paper, verbs in ALL CAPS are to be read as tenseless – in the sense of *without tense*. In some contexts, for ease of legibility, I indicate that the verbs should be read as tenseless only by putting the initial verb(s) in ALL CAPS.

<sup>7</sup>This is because one accepts that there are propositions that *will be* true or *have been* true although there is nothing – where this last ‘is’ can be construed as either present tense or tenseless – that grounds the truth of these propositions. One can see clear examples of philosophers who adopt this unsatisfying position in Broad (1938: 316); Prior (1962: 11); Salmon (1987: 91); Cargile (1989: 162); Hinchliff (1996: 126); and Craig (1997: 29).

<sup>8</sup>For examples of contemporary philosophers who accept that there are different levels of existence simpliciter, see Christensen (1993: 122) and Smith (2002).

<sup>9</sup>This discussion occurs in *Time and Reality* (under review). For another recent discussion that draws some similar conclusions, see Markosian (1993).

might be deemed the metaphysical axiom that no entity can bear any property whatsoever, unless that entity EXISTS (simpliciter) and (2) the methodological constraint that no theory regarding the nature of temporal reality should preclude the possibility of one's being free, in the sense that it is, at the same moment, both possible for him (or her) to perform those actions within his abilities and also possible for him to refrain. I maintain that the metaphysical axiom should be upheld on the basis of its compelling plausibility and that the methodological constraint should be adopted on the grounds that if there are legitimate threats to a naive notion of freedom, they should arise from concerns over determinism or the nature of causation, rather than an account of time – this thing that renders change possible – or the nature of temporal reality. The view that time passes, on the model of passage as qualitative change discussed above, is incompatible with this principle and this constraint taken together.

On the passage model of temporal becoming, there ARE future and past events (and moments, objects, etc.); a future (past) event is one that is supposed not to exist now – for if it existed now, it would be present, rather than future (past). However, if an entity, which belongs to a category of entities that is such that those entities can or must bear temporal properties, that is, a *temporal entity*, does not exist at the present moment, then that entity does not exist at this moment. If something does not exist at this moment – and yet is a temporal entity – then it is natural, plausible, and compelling to think that that thing does not EXIST (simpliciter). Furthermore, if an entity does not EXIST, then it can bear no property. There is simply nothing there to be the way the existent things that bear that property are characterized as being. It seems incoherent to claim that something that does not EXIST bears a certain property, that is, in a certain way, for in order for something to be a certain way – or any way whatsoever – then it must EXIST. Therefore, this account of temporal becoming on which things that do not now exist (and yet are temporal entities) bear properties is deeply problematic, if not baldly incoherent.

The retort that a future moment, event, etc. does not (yet) exist, but *will exist* and that it already, prior to its existence, bears (among others) the property of being future – a property it will lose when it comes into existence – seems to rely on a distinction between different ways of being simpliciter (or to be a truth about a temporal entity without any basis). That is, it seems to distinguish between *being* and *going to be*, and maintaining that if an entity exists in either of these ways, it may bear properties. A similar response, to the metaphysical axiom, might be made on behalf of past events which, it might be claimed, no longer exist – that is, do not exist – and yet *have been* and so may bear properties. The notion of different levels or distinct ways of being simpliciter seems misguided, for it requires an attempt to augment a basic and simple concept, namely, that of being simpliciter, on which one loses purchase when it can no longer be understood as merely the contrary of nothingness. For this reason, I cannot take seriously this means of arguing against the metaphysical principle that seems to me to be axiomatic.

It seems, then, that if a temporal entity does not exist at this moment, then such an entity can bear no properties whatsoever. There are at least two ways one might respond to this point. One might deny it, and insist that an entity that does not exist might, nonetheless, bear properties and so be a certain way. Hence, if I will become a grandfather, the event of the birth of my first grandchild, although it does not exist, does – notwithstanding its lack of existence – bear the property of being future (and, similarly, although Socrates no longer exists, he does bear the property of having been wise). This response, though, which seems self-contradictory, for it seems to assert that an entity which does *not exist*, nevertheless, *is* a certain way (and so *exists*), is pitched at such a basic level that it seems one can respond to it merely by reasserting the axiom with which it is incompatible (as I have done).

Or, of course, one may respond to the point that an entity that does not exist at this moment (although it is a temporal entity) cannot, for the reason that it does not exist, bear any property, by

taking recourse to the view that all things that have existed, do exist and will exist, that is, all things that exist at any moment of time are equally real, and thus have the same ontological status – that is, they all EXIST. As such, they are capable of bearing properties. This view is often described, rather obscurely and misleadingly, as the view that existence is *tenseless*. Since tense is best thought of as a linguistic phenomenon (in particular, the inflection of a linguistic term to indicate a time relative to the time of utterance) the view is more aptly characterized, for obvious reasons, as the view that temporal reality is *ontologically homogeneous*.

Lest it lead to confusion below, it should be pointed out here that the thesis of the ontological homogeneity of temporal reality is consistent with views that characterize temporal reality as metaphysically homogeneous and with some views that characterize it as metaphysically heterogeneous. To review: On heterogeneous views of the nature of temporal reality, there are genuine metaphysical differences – either qualitative temporal or ontological – among moments preceding and succeeding the present one; on homogeneous views, there are neither qualitative temporal nor ontological differences between this moment and moments preceding and succeeding it. If one takes temporal reality to be metaphysically heterogeneous and attributes this heterogeneity to differences in the temporal properties (i.e. pastness, presentness, futurity) instantiated by moments, then not only is the ontological homogeneity of temporal reality consistent with its heterogeneity, it is, on this account of the heterogeneity (and given the proposed metaphysical axiom) entailed by it. Although it is recognized that the view that temporal reality is metaphysically homogeneous has the consequence that it is ontologically homogeneous, it has not been recognized that if one takes temporal becoming to be a sort of qualitative change, then one is just as committed to the thesis of ontological homogeneity (that is, if one wishes to uphold the proposed metaphysical axiom) – even if one supposes temporal reality to be heterogeneous.<sup>10</sup>

I find the thesis of ontological homogeneity to be objectionable on several grounds. First of all, the intuition that if something – of any category of entity that can or must exist in time – does not exist at this moment, then that thing does not EXIST at all, is very strong. Being present certainly seems to impart a privileged status to any entity that bears this property; one plausible explanation for this is that being present is a necessary condition of the existence of anything that exists in time. *Nota bene*: this is not to say that only present things exist, for some things, for instance, numbers and properties, arguably do not exist in time. The notion of atemporality – existing outside of time – is crucial to understanding the view of the nature of temporal reality I propose below. (Of particular importance is the tenet that *facts* are not temporal entities and, thus, do not exist in time.)

Some, however, who are willing to concede the point that presently existing entities do indeed have a privileged status, deny that the privilege is existence and that the distinction in status is ontological. They often suggest that the special status of present entities, namely, those bearing the property of being present, can be accounted for in perceptual or epistemological terms. They claim that entities that exist at the present moment are special merely because of their *proximity*. This proximity enables one to perceive them directly and, hence, to know them better and in a way that it is not possible to know now, past entities or future ones. But this sort of account of the privileged status of the present is not moving, for certainly there seems to be greater disparities in temporal reality than the merely qualitative ones allowed for on this view. Moreover, it

<sup>10</sup>Carter and Hestevold assert that temporal becoming in terms of qualitative change (what they call *Transient Time*) is incompatible with the ontological homogeneity of temporal reality (a view that is more general than, but essentially similar to, their notion of *Temporal Parity*). This, however, is false – if one accepts the principle that in order for an entity to bear any property whatsoever, that entity must exist. For given this principle, the passage model of temporal becoming entails the ontological homogeneity of temporal reality. See Carter and Hestevold (1994: 270).

certainly seems possible that there are many present entities that are not proximal in this sense, for example, individuals or events, too small or too faraway to be observed.

According to the proponent of the thesis of ontological homogeneity (whether he is, as well, a proponent of the homogeneity or heterogeneity of temporal reality), all entities in time (events, moments, etc.) are equally real. A certain sort of theorist of heterogeneous temporal reality maintains, though, that some entities now bear the property of being present, others bear the property of being past and yet others the property of being future. On this view, then, the only differences among entities in time are qualitative, that is, in the properties those entities bear. However, the differences between an entity that existed at a moment prior to the present and one that now exists seem to be more profound than merely qualitative ones, that is, than which properties those things bear. It must be recognized, though, that granting the thesis of ontological homogeneity, the differences between all temporal entities are indeed exclusively of this qualitative kind. Yet it is certainly natural to think that the metaphysical differences between a temporal entity that does not now exist and one that does are much greater and, more precisely, *ontological*: The one thing exists and the other does not.

The same point is apt when considering an entity that now exists vis-à-vis one that is supposed to exist at some later time. The differences, from a metaphysical perspective, between two such entities – even if one concedes that they are entities of the same category, and, thus, share some properties – seem to amount to more than just qualitative ones. Furthermore, and just as significant, the differences between some entity that once existed and one supposed to exist at a moment subsequent to the present seem to be metaphysically deeper than merely qualitative and to be of a different kind than those that exist between some entity that once existed and one that now exists, on the one hand, and a presently existing entity and a putative one existing at a subsequent moment. These significant distinctions that intuitively hold among temporal entities, must be denied by the proponent of the thesis of ontological homogeneity and, insofar as he is committed to this thesis, the proponent of a heterogeneous temporal reality who contends that temporal becoming is to be construed as the passage of time and, hence, as a species of qualitative change.

One who accepts an explanation of temporal becoming in terms of the passage of time must also deny a strong intuition that is often thought to be preserved by an explanation in terms of qualitative change. Insofar as the notion that time passes entails the ontological homogeneity of temporal reality, one who adopts this notion must forfeit the view that any temporal entity ever comes into being or ceases to be simpliciter. According to the thesis of ontological homogeneity, all moments of time are equally real; although it is a mistake to think that all moments exist *simultaneously*, all moments, nonetheless, exist *simpliciter* (i.e., EXIST) and, hence, so do all things that exist at any moment. This is not to say that each thing exists at *every* moment, but that each thing exists at the moment it does *at all moments*. Since existing at a moment entails existing simpliciter, each temporal entity always exists simpliciter. I believe the intuitions that things can come into being and cease to exist simpliciter are the fundamental intuitions that underlie one's allegiance to the notion that there is something dynamic in temporal reality. These intuitions cannot be given any metaphysical basis on the view that temporal reality is ontologically homogeneous and, thus, one who is sympathetic to this notion about the nature of temporal reality should reject the passage model of temporal becoming in terms of qualitative change. Even if one does not have the sense that temporal reality is, in some way, dynamic, if one thinks it is even possible for a temporal entity to come into being or cease to be simpliciter (that is, not merely at a moment), one must reject the thesis of the ontological homogeneity of temporal reality.

There is, moreover, another significant complication that accompanies the thesis of the ontological homogeneity of temporal reality, one which has not been recognized by those who

rely on the thesis to account for the passage of time. If, as the thesis maintains, all entities in time are equally real and differ merely in respect to the properties they bear, then one must reject the view that entities *endure* through time, in the sense of being wholly present at each moment they exist.<sup>11</sup> To see why this is so, consider the past 40 lb 5 year-old boy that IS, at least intuitively, me. According to the view in question, he IS as real as I now am, he merely has (among others) the properties of existing at another moment and of being past. But I now weigh 195 lb. One and the same thing cannot weigh both 40 and 195 lb; therefore, I am distinct from the 5 year-old boy. In other words, he is not me.<sup>12</sup> An attempt to reconcile the identity of me and the boy based on the fact that he is past whereas I am present is futile, for being past and being present are merely properties, and to claim that in addition to the incompatible properties of weighing 40 lb and weighing 195 lb, the boy and I have other ones, obviously does nothing to alleviate the initial inconsistency. Moreover, being past and being present are themselves incompatible properties, so if the boy and I are both equally real and we bear these properties – he the former, I the latter – then we obviously must be distinct entities. If one accepts the thesis of ontological homogeneity, then if there is a sense in which I am the same entity as the 5 year-old boy, then it must be in the attenuated sense provided by temporal parts theory (or, as it is also known, four-dimensionalism or perdurance theory).

Although it has been recognized that temporal parts theory is the natural accompaniment to the view that temporal reality is homogeneous (for the former was developed in response to empirical theories that seem to have as a consequence the latter), it apparently has not been noticed that the view of temporal becoming as a species of qualitative change is inimical to the intuitive view of the nature of objects and identity captured by endurance theory, and as such requires temporal parts theory just as much as any view that supposes temporal reality to be metaphysically homogeneous.<sup>13</sup> Several philosophers have argued that some variation or other of temporal parts theory is desirable – or even requisite – if one is to provide satisfactory resolutions to certain philosophical puzzles, such as those regarding vagueness or the apparent coincidence of material objects.<sup>14</sup> However, I think that the theoretical advantages temporal parts theory is supposed to have are undermined by the fact that any variety of such theory entails the ontological homogeneity of temporal reality, and this thesis is objectionable on the grounds presented in the present discussion (and below).

Even if one is somehow capable of ignoring or meeting these objections to the view that time passes, and, more generally, to accounts of temporal becoming on which it is a sort of qualitative change, such accounts encounter other obstacles arising from the methodological constraint proposed above. These difficulties arise, as do those just considered, as

<sup>11</sup>In Sider (2001), Sider maintains that the ontological homogeneity of temporal reality (what he calls *eternalism*) is compatible with the view that temporal entities endure. For a response – and, hence, a defense of the claim made above – see my “Temporary Intrinsic and Relativization” (under review).

<sup>12</sup>Although their terminology differs from mine, the same conclusion is reached in Carter and Hestevold (1994) and Merricks (1995). Their reasons for concluding that the ontological homogeneity of temporal reality is incompatible with the thesis that persisting objects endure are essentially the same as those presented in the text. At this point, I should register my disagreement with Carter and Hestevold’s claim that the passage model of temporal becoming (what they call *Transient Time*) requires the view that objects endure. As I argue in the text, given that the passage model (in conjunction with the proposed metaphysical axiom) entails the ontological homogeneity of temporal reality, this model requires that persisting objects perdure.

<sup>13</sup>Incidentally, the metaphysical position presented by D.H. Mellor in Mellor (1981), one that conjoins the homogeneity of temporal reality with endurance theory, viz. the claim that entities are wholly present whenever they exist, (and a natural notion of properties) seems, for the reasons described in the text, incoherent.

<sup>14</sup>For extended discussion and defense of some variation of temporal parts theory, see Heller (1990), Hawley (2001), and Sider (2001).

consequences of a commitment to the thesis of ontological homogeneity (the very thesis, one should note, endorsement of which enables such accounts of temporal becoming to be reconciled with the proposed metaphysical axiom). There are several reasons for thinking that this thesis precludes the sort of freedom required by the methodological constraint. One is the classic (but misleadingly named) *problem of logical determinism* which follows naturally from the thesis and the very plausible claim that the past is, in some significant sense, fixed or necessary.<sup>15</sup> Other reasons are provided by the following arguments that seem to demonstrate the inconsistency of the thesis with the methodological constraint.

If temporal reality is ontologically homogeneous, then all events that occur in my life – my birth, my whereabouts and activities at each moment, and my death – ARE equally real. There are moments, then, before I am even born, at which it is true that, at some subsequent moment, I perform a certain action; each event in my future life IS, then, in a manner of speaking, in place and set. Although I might not, at some time, know what these events are, and although this epistemological situation might create an illusion of openness in the future and of the ability to perform either of two incompatible actions, what I, in fact, do is set. Since it is set at moments at which I do not exist, it is set before any moment at which I could possibly deliberate. The common response to this point, namely, that these events are fixed at the moments before I exist *because* of the things I do and decisions I make at the moments I do exist seems beside the point. For the fact remains that the events in which I participate are fixed even before I exist; my subsequent existence and actions cannot, it seems, have causal efficacy at moments preceding my very existence. And if this is the case, I could not have deliberated about or chosen the actions which lead to those events – even if, when I do exist, I seem to do so. Hence, if genuine deliberation about two contradictory actions, and the subsequent choice and personal endorsement of one of them are necessary for an action to be performed freely, then, it seems, free actions are precluded by the ontological homogeneity of temporal reality.

Furthermore, if freedom requires that it is a *person* who must, at a particular moment, deliberate about the actions which he himself will take at a future moment, then ontological homogeneity seems to preclude free action, for the thesis has the consequence that no person is wholly present at any particular moment. In order to preserve free action, the proponent of ontological homogeneity must maintain that such action is possible when one instantaneous temporal part of a person deliberates about and chooses an action to be undertaken by some other instantaneous temporal part of that person. However, not only is it dubious that a temporal part of any entity (even a person) is the sort of thing that can meaningfully be said to deliberate or choose; more importantly, it seems obvious that something that exists only for an instant cannot *do* anything, for action requires persistence through time. Therefore, the very ontology to which one is committed by the thesis of ontological homogeneity is incompatible with the proposed methodological constraint.<sup>16</sup>

<sup>15</sup>I discuss this problem, which originates with considerations presented by Aristotle, in much detail in “The Problem of Fixity” (under review), and so forgo discussion here.

<sup>16</sup>Theodore Sider defends his temporal parts theory against the objection that temporal parts “do not exist long enough to have many of the properties we attribute to continuants” by suggesting that such attributions can be analyzed in terms of complex relations holding among the temporal parts of an individual. See Sider (2001: 197–198). I do not find such a response satisfactory for it does seem that deliberation requires a single – numerically identical-entity to weigh options involving it itself (that numerically identical entity) and that an intention is most plausibly construed as a mental state that promotes the plans of the very same – numerically identical-entity that bears it. Both views are incompatible with Sider’s suggestion. I do realize this is the assertion of intuition (regarding the natures of deliberation and intention) against a developed view; however, the problems for temporal parts theory and free action do not arise merely because temporal parts do not exist long enough to act, but also because temporal parts theory entails the thesis of ontological homogeneity. It is the combination of these problems that underlie my confidence in the intuitions I assert.



Finally, according to the thesis of ontological homogeneity, in conjunction with the view that time passes, every event in time, subsequent to this moment, is a future event, and hence, *will be*. If it is not the case that such an event will be, then the event is not a future event (an event that merely *might be*, for instance, is a different sort of an event: a merely possible event, not a future one). An event that will be is one that will be, at some moment, subsequent to this one, present – it *must be going to be present*, if it is, at this moment, a *future* event. Hence, although an event, such as my wearing a gray sweatshirt tomorrow morning, might seem to be a contingent event, if the event is future, the coming to be of the event is necessary. In other words, although the event might, in itself, seem to be contingent, its very futurity demands that its coming to be is not.

It is worth mentioning, for the sake of forestalling objection, two senses in which the event of my wearing a gray sweatshirt tomorrow morning, if such an event is indeed future, is *not* contingent. First of all, it is a mistake to think that the event is contingent in the sense that it is possible in the broadly logical (or metaphysical) sense that the event does not occur because there exist possible worlds in which I never exist. If there are indeed possible worlds in which I never exist, given that I do, in fact, exist, such worlds are not possible relative to the actual one. My existence at this moment – or my present existence in conjunction with my existence at past moments – makes it a necessary feature of this world that I exist; as such it is actually impossible that I *never* exist, and this fact is sufficient to render inaccessible any possible worlds according to which this is the case.<sup>17</sup>

Secondly, even if, as many believe, the laws of nature are indeterministic and so do not imply, in conjunction with a description of some past or present state of the world, the event of my wearing a gray sweatshirt tomorrow morning, this does not show that such an event is contingent. The problem presented to one's freedom by the ontological homogeneity of temporal reality has nothing to do with determinism. Hence, I am not claiming that the event of my wearing a gray sweatshirt tomorrow morning is necessary because it is in some way *determined*. Rather, I am claiming that such an event, if it is assumed to be future, is necessary in virtue of its futurity. A future event – as opposed to one that is merely possible – is an event that will be; it is not an event that merely might be, but one that exists and must come to pass insofar as it is future.

These points underlie the incompatibility of temporal becoming, understood as a species of qualitative change, and freedom in any natural sense. I maintain that:

(P1) If my wearing a gray sweatshirt, *s*, occurs tomorrow morning, then, according to the thesis of ontological homogeneity (and the view that time passes), *s* is now a future event.

(P2) If an event, *e*, is now future, then it is now necessary that *e* will come to pass. Therefore,

(C) If *s* occurs tomorrow morning, then it is now necessary that *s* will come to pass.

However, (P2) is ambiguous. It may be taken to mean either

(P2') Necessarily, if *e* is now future, then it is now the case that *e* will come to pass, in which case (P2) is obviously true and uncontroversial, but irrelevant to the argument for (C). Or (P2) may be construed as

(P2'') If *e* is now future, then necessarily it is now the case that *e* will come to pass.

Construed as (P2''), (P2) yields a valid argument, but on this interpretation the claim is neither obvious nor uncontroversially true. Nevertheless, it does seem to me to be true. For it seems to be contradictory to claim that it is now the case that an event *will* come to pass (it will be the case that *p*) and yet it is *now possible that it not* come to pass (it is possible that not-*p*).

<sup>17</sup>See Salmon (1984, 1989) for the relevant modal notions of *relative accessibility* and an *impossible world*.

I anticipate two responses to this claim. One is that I am confusing:

(P2'') It is now possible for an event that is now future not to occur, the negation of (P2'') and a claim that many take to be true, with

(P2'\*) It is now possible that an event,  $e$ , be future and yet it now be the case that  $e$  not come to pass, the negation of (P2') and a claim that should be obviously false insofar as (P2') is an obvious (and analytic, in some sense) truth. However, it is not the case that I am confusing these two claims; my reason for regarding (P2'') as false is not the falsity of (P2'\*). Although both (P2'\*) and (P2'') seem to me to be false, I intend at this point to be denying specifically (P2'').

A second response is the retort that it is not now necessary for an event that is now future and yet seemingly contingent, such as my wearing a gray sweatshirt tomorrow, to come to pass, for surely there are possible worlds just like this one at the present moment and yet in (or according to) which I do not wear a gray sweatshirt tomorrow morning. But, again, this is exactly what I am denying. Any world exactly like this one at the present moment is, assuming that the actual world is ontologically homogeneous and that my wearing a gray sweatshirt tomorrow morning is now a future event, a world such that it is now the case that my wearing a gray sweatshirt tomorrow morning is a future event, that is, a world whose future contains the event of my wearing a gray sweatshirt tomorrow morning. Hence, assuming that this event is now future, in every possible world like the actual one at this moment, this event is in the offing and so is necessary.

One might still be dubious of this conclusion and suspect it comes merely by stipulating that the only possible worlds relevant to evaluating the claim that,  $s$ , the event of my wearing a gray sweatshirt tomorrow is *necessary if future* are the worlds in which  $s$  is indeed future. But note: this directive is not mere stipulation, but is, rather, a logical consequence of the claim being evaluated. One might then insist that when considering the claim that it is possible for  $s$  not to occur although it is now future (that is, the claim that this future event is not necessary) the relevant possible worlds are only those that match the history of the actual world up to and including the present moment, and thus exclude any characterization of the future. Insistence upon this point is mistaken, however. On the assumption that temporal reality is ontologically homogeneous<sup>18</sup>, a world is given with its entire temporal nature – past, present, and future – specified; thus, relevant possible worlds are complete with respect to temporal reality. Given that each world's entire temporal nature is given and that,  $s$ , the event of my wearing a gray sweatshirt is supposed to be future, an ontologically homogeneous world exactly like the actual one at the present moment is one in which it is the case that  $s$  is future and, thus, occurs at a subsequent moment.

If  $s$  – or any event,  $e$  – is indeed future relative to a moment,  $m$ , there is some feature of temporal reality that makes this so; it is, presumably, the occurrence of  $e$  at a moment subsequent to  $m$ . So the future of any possible world relevant to evaluating the claim that an event,  $e$ , is future, relative to  $m$ , must be characterized at least to the extent that the occurrence of  $e$  at a moment subsequent to  $m$  is entailed. Although possible worlds in which it is supposed that  $e$  is future, relative to  $m$ , might differ in other respects, they all are such that  $e$  occurs at a moment subsequent to  $m$ . Hence, the only worlds relevant to assessing the claim that an event is necessary if future are worlds in which that event is in fact future. From this it follows that the occurrence of the future event is necessary.

<sup>18</sup>This is an assumption being made at this point. It is this assumption, one will recall, that enables the proponent of the view that time passes to avoid the difficulties, for such an account of temporal becoming, that arise from the proposed metaphysical axiom that an entity must exist if it is to bear any property whatsoever.

One who makes any of the retorts anticipated above or who resists, in some other way, the claim that if an event is now future, then it is now the case that the coming to be of that event is necessary and, hence, that the event itself is necessary, seems simply to fail to recognize the stringent constraints that the view that time passes – if it is, as I contend, committed to the thesis of ontological homogeneity – on the metaphysical (and, in particular, the modal) nature of reality.<sup>19</sup>

Thus, if the coming to be of a particular event is necessary, the coming to be of its contrary is impossible. Since the sort of freedom required by the methodological constraint requires that if an action is to be done freely, then it must, at the same moment, be both possible for one to be able to perform an action and possible to perform its contrary – and it is not possible to perform an action whose coming to be is impossible – ontological homogeneity is incompatible with such freedom.

Therefore, accounts of temporal becoming on which this phenomenon is a sort of qualitative change and, in particular, the view that time passes (as it has traditionally been characterized) are incompatible with the conjunction of the metaphysical axiom and methodological constraint proposed above. Although recourse to the thesis of ontological homogeneity allows one to reconcile such accounts with the principle that a thing must exist if it is to bear any property whatsoever, the commitment of any account to this thesis forces it to founder on the methodological constraint. Hence, these accounts of temporal becoming should be rejected. This does not mean, however, that one must forgo a satisfying account of one's basic sense of temporal reality. A plausible account of this sense, that is, an account of the awareness of temporal becoming, is available; one that – by exploiting the distinction between passage and transience – provides a natural explanation of this sense in the context of a comprehensive theory of temporal reality.

### Pure Becoming and the Transience of Temporal Reality

On both subjective accounts of temporal becoming and the account on which time is supposed to pass, the basis of temporal becoming is taken to be some sort of qualitative change. Hence, both those who maintain that temporal reality is metaphysically homogeneous and those who take it to be heterogeneous seem to think that the putative intuition of passage or, more accurately, one's sense of temporal becoming, is founded upon the recognition of certain changes – in events or in one's own states – occurring in time. It is, of course, commonplace to cite the claim that time passes as a source of much needless confusion in the philosophy of time, and dismiss it as mere metaphor. However, the pernicious effects of the metaphor seem to be more subtle and pervasive than has been previously recognized; for the motivation to explain temporal becoming in terms of change is, I believe, nothing more than the desire to provide a literal basis for this infelicitous metaphor.

The metaphor is infelicitous primarily because, although one frequently encounters the claim that it is a striking feature of our experience of the world that time seems to pass (or flow), I for one have never been struck by this feature of the world. Nor have I been struck by any feature that might be aptly described, with either literal or metaphorical sense, as the *movement* of time. As proposed above, time is a *sui generis* entity, a real but abstract *feature of reality*. As such, it has no spatial location. Thus, I have no idea what it would be like for

<sup>19</sup>The ultimate reasons why the ontological homogeneity of temporal reality places such strict modal constraints on the future are discussed in "The Problem of Fixity" (under review).

something such as time – real but located nowhere – to move. On this account of the nature of time, moreover, I doubt that one could have the sense that time, lacking location, passes or flows or that one moves through time. I submit that these metaphors have become so familiar that they are simply taken as proxy for a different and compelling intuition not about time, *per se*, but about the consequences of this feature of reality with respect to the world and one's experience of it. In other words, such metaphors obscure a genuine intuition not about *time*, but about *temporal reality*.

The present point is likely blunted by the fact that the metaphor of the passage of time has become so familiar that the term 'passage' has now a literal, secondary usage, that expresses the concept of a transition from one state to another. This secondary usage might provide one with a clear sense of what it would be for time to pass. However, if this is the case, and it is this sense of passage – the transition from one state to another – on which allegiance to the view that time passes is based, then this certainly corroborates the preceding point, to wit, that all traditional attempts to characterize our sense of temporal becoming are ultimately based on the desire to give a literal interpretation to the metaphor of passage. But if, as I am suggesting, the idea of time moving (or passing or flowing) is as confused as any other attribution of a property or ability to something that simply cannot have that property or ability, then the desire to give a literal interpretation to this metaphor is surely misplaced, for the metaphor itself is incorrigibly obscure.

Even if the metaphor of passage is dismissed and the secondary, literal usage of 'passage' is embraced as the primary, so that the idea of the passage of time can be given a literal sense, namely as the phenomenon of events or moments changing with respect to their temporal properties, it is not at all clear why an appreciation of this phenomenon should be regarded as the significant and compelling sense of temporal becoming. Undeniably, one cannot perceive future events (or moments) nor past events (or moments), so one cannot perceive, and therefore really have a sense of, the qualitative changes these entities undergo as they are supposed to go from future to present to past. Furthermore, it is not clear what it would be to experience or even intuit this phenomenon of certainly imperceptible and seemingly unknowable events (or moments) undergoing changes. Hence, there appears to be no reason to think that it is the appreciation of these changes that provide us with the strong intuition of the novelty of each successive moment; nor would such an appreciation seem to be able to provide the basis for the universally held view that successive uses of temporally indexical expressions refer to distinct moments.

If one disclaims, for the forementioned reasons, the idea that time – in either a metaphorical or literal sense – passes, then there is simply no reason to attempt to account for our sense of temporal becoming in terms of *change*. Therefore, if one dismisses the idea of passage, one can avoid all the problems that arise from this infelicitous, but all too familiar metaphor. One can avoid both the problematic accounts of one's sense of temporal becoming, proposed by proponents of the homogeneity of temporal reality, that locate the source of this sense in changes in semantic features of the world or subjective states, and also the attempt by proponents of the heterogeneity of temporal reality to account for this sense in terms of qualitative change of temporal properties that runs afoul of the proposed metaphysical axiom and methodological constraint.

I submit that our fundamental intuition about temporal reality which has been obscured by the metaphor of passage is the appreciation of the ontological and other important metaphysical differences between the present moment and those preceding and succeeding it that arise from the radical novelty of each moment and its immediate loss. Thus, the sense underlying our reflections on the nature of temporal reality is not one of *passage*, that is of change, but one of *transience* – the coming to be and immediate ceasing to be of each moment of time.

If temporal reality is transient in this way, then there is a genuine ontological difference between the present moment and any moment preceding or succeeding it, for the present moment exists, whereas any preceding or succeeding it now does not. Thus, things existing now are qualitatively – for they bear the property of being present – and even ontologically – for they exist – different from things that do not. There is, moreover, a genuine metaphysical difference between moments that preceded the present one, that is, moments that were once present, and those that succeed it, for the nature of a moment, when present, fixes facts<sup>20</sup> about the world at that moment. Since these facts, it seems, remain when the moment has ceased to be, the nature of moments that were once present set, in a sense, the nature of the world preceding the present moment. There is, then, a past nature of the world and so the past does indeed exist. However, the past does not exist *before* the present moment, for given the transience of temporal reality, nothing exists before the present moment. This might appear to be paradoxical, but the appearance should be dispelled when it is understood that the past, on the proposed view, does not exist in time at all. The past is not comprised of moments (or events) or entities of any kind bearing the property of pastness. The past is a body of facts and facts, which are not susceptible to change, do not exist in time.<sup>21</sup>

A moment preceding the present moment leaves, with facts, indelible marks on the world; a moment succeeding the present one cannot have such an effect on the world, that is, could not have left such an impression on the nature of reality, for such a moment has never existed. And so, the past is real, even necessary, in a way the future is not. Thus, there is an ontological difference between the past – which exists *atemporally*, that is, outside of time, as merely a body of facts – and the present, which exists at a moment and includes events and ordinary objects. Moreover, there is an ontological difference between the past – which exists as a body of facts – and the future, which is nothing at all (it does not exist in any sense as anything at all).

I am suggesting that it is a sense of these important ontological and metaphysical differences in temporal reality – and not a sense of alleged qualitative differences arising from the changes events or moments undergo with respect to their temporal properties (and certainly not a sense of change among semantic values or subjective states) – that is, or accounts for, one's most basic understanding of the metaphysical natures of time and temporal reality.

On this account of the metaphysics of time, temporal becoming, the phenomenon that underlies the fact that each moment has a sort of novelty and that successive uses of temporally indexical expressions are possible and refer to different moments of time (or different classes of simultaneous events) is not a species of qualitative change, that is, it is not a process of entities (events or moments or whatever) undergoing change with respect to the properties they bear. Temporal becoming is, rather, *pure becoming*, a process by which moments come into existence and then immediately cease to be. These moments do not and cannot undergo change, for they are transient, existing only instantaneously. Enduring entities, however, such as material objects and persons, which exist in time and over many moments, certainly can and do change.

<sup>20</sup>Facts are here construed as basic, simple (i.e. non-structured) entities.

<sup>21</sup>Although it is, admittedly, tempting to think of the past growing and, hence, *changing*, I think this thought should be abjured, for the past, as a body of facts, is indefinitely large to begin with – it gets no larger. This temptation comes, I suspect, from speaking of *the* past. The use here of the definite article is misleading (as it is when one speaks of *the* present) for there is not one body of facts that is the past, but rather a new one continuously (just as there is, continuously, a novel present moment).

This notion of pure becoming is very similar to one proposed by C.D. Broad, which he calls *absolute becoming*, and presents in the following way:

To ‘become present’ is, in fact, just to ‘become’ in an absolute sense, i.e., to ‘come to pass’ in the Biblical phraseology, or, most simply, to ‘happen.’ Sentences like ‘This water became hot’ or ‘This noise became louder’ record facts of *qualitative change*. Sentences like ‘This event became present’ record facts of *absolute becoming*. Now it is clear that qualitative change involves absolute becoming, and it seems to me equally certain that absolute becoming is involved in mere continuance without qualitative change. It is therefore hopeless to expect to treat absolute becoming as if it were a particular case of qualitative change....I do not suppose that so simple and fundamental notion as that of absolute becoming can be analysed.... (italics are Broad’s) (Broad 1938: 280–281)<sup>22</sup>

This notion of pure or absolute becoming has, however, too frequently been overlooked by those philosophers who have considered the metaphysics of time.<sup>23</sup> Most who have defended the heterogeneity of temporal reality have claimed, either explicitly or implicitly via the adoption of the notion of passage, that there is a compelling intuition, or feeling, that temporal becoming is an example of qualitative change. But if this is the intuition that those who believe that temporal reality is metaphysically heterogeneous and, moreover, that time passes are defending, then it must be recognized that there is no reason to think it an accurate intuition and compelling reason to deny it.

Therefore, insofar as there is indeed a widely shared and acknowledged, significant sense regarding the nature of temporal reality, it is not the intuition of passage. I suggest that it is the apprehension of the transience of temporal reality.<sup>24</sup> The passage of time, in the sense of moments or events taking on or losing, at each new moment, different temporal properties, is not, on this view, a genuine feature of reality. Of course, if one wishes to construe the idea of passage widely enough, perhaps pure becoming might be deemed a sort of passage, to wit, the transition from one state of the universe to another state, one that includes a radically novel moment of time. Such a construal, however, is ill-advised given the traditional – and deeply problematic – notion of passage, understood as a sort of qualitative change. Pure becoming appears to be, rather, a *sui generis* metaphysical phenomenon and one which provides a straight-forward account of our experience of temporal becoming and its metaphysical grounds.<sup>25</sup>

<sup>22</sup>Whereas I take pure becoming to underlie the transience of temporal reality and, thus, to be the fundamental notion in a comprehensive account of the metaphysics of time, it does not play such a role in Broad’s philosophy of time.

<sup>23</sup>The notion is discussed in Savitt (2002). Savitt and I interpret Broad very differently. On his interpretation, Broad’s notion of absolute becoming is simply the view that temporal reality is ontologically homogeneous. This interpretation overlooks the ontological spontaneity – the continuous coming to be and ceasing to be of a moment – embodied in the notion Broad characterizes; it is precisely this aspect of the notion that I believe makes it important and insightful. I disagree, for the reasons elaborated in this paper, with Savitt’s contention that temporal becoming can be accounted for simply in terms of the ontological homogeneity of temporal reality. Moreover, as should be clear from the foregoing discussion, Savitt’s claim that his construal of absolute becoming (viz., the thesis of ontological homogeneity) is neutral in regards to questions about human freedom is incorrect.

<sup>24</sup>I disagree, then, with D.C. Williams’ claim that “the most laborious effort cannot construct an intelligible theory which admits of the literal truth” of what has been regarded as the intuition of passage (Williams 1951: 104, page number refers to the reprinting). I develop an intelligible and, I hope, compelling theory, based on the ideas developed in the present paper, in *Time and Reality* (under review).

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