

# Time-awareness and projection in Mellor and Kant

by Adrian Bardon, Winston-Salem, North Carolina

*Abstract:* The theorist who denies the objective reality of non-relational temporal properties, or ‘A-series’ determinations, must explain our experience of the passage of time. D.H. Mellor, a prominent denier of the objective reality of temporal passage, draws, in part, on Kant in offering a theory according to which the experience of temporal passage is the result of the projection of change in belief. But Mellor has missed some important points Kant has to make about time-awareness. It turns out that Kant’s theory of time-awareness also involves projection – but for him, the projection of temporal passage is necessary to any coherent experience at all, and for this reason events in the world cannot be represented except as exhibiting real tensed change. Consequently we cannot intelligibly suppose the world we know to be without the passage of time. This fact would permit a modest transcendental argument the conclusion of which is that we are entitled to describe the world in terms of temporal passage.

*Keywords:* time, time-awareness, passage, projection, transcendental arguments

## *1. Mellor’s theory of time-awareness*

The theorist of time known as the ‘B-series’ or ‘tenseless’ theorist maintains that change – in the sense of change in the temporal position of events – is not objectively real. The B-series refers to the series of events understood solely as timelessly earlier, later, and simultaneous with each other; the A-series, by contrast, is the series of events understood as past, present, and future. On any account, B-series determinations do not change; A-series determinations would change if they were real. For the B-series theorist, change can only mean difference in properties at different times. For the realist about A-series properties, change means change over time by virtue of the passage of time – the becoming and passing-away of events and things. B-series theorist D.H. Mellor does not claim that statements referring to A-series properties can be translated into B-series statements; indeed, he thinks that A-series terms are irreducible. However, when true, A-series statements, he says, are made true by B-series facts. For example, the A-series statement “Event *e* is occurring now,” if true, is true by virtue of the simultaneity of the utterance with event *e*. From a purely objective standpoint, on this view, there is no more fact of the matter as to what time it is ‘now’ than there is with regard to what place is ‘here.’

Mellor is a good figure to focus on in thinking about time-awareness, because he is a prominent proponent of the B-series theory of time, and because he has contrasted his theory to Kant’s while producing an account of time-awareness in the

context of a thoroughgoing B-series theory. Consistently with his view of the world as lacking in non-relational temporal properties, Mellor, like many other B-series theorists, endorses an account of change according to which, say, a poker's change in temperature consists simply in the poker's being cold at time  $t$  and being hot at time  $t+n$ .<sup>1</sup> According to this account, we (tenselessly) perceive the poker to be cold at  $t$  and (tenselessly) perceive it to be hot at  $t+n$ . But then how is it that we come to represent the poker as becoming hot over time? We seem to have a sense of change according to which things like pokers go from being cold to being hot, such that a poker's hotness comes about and passes away. To answer this question, Mellor proposes a theory explaining our awareness of time.

His theory of time-awareness has two main parts. First is his theory of how we get the idea of a "tensed" view of time, which for him depends on the acquisition of the concept of the later-than relation and its application to the concept of the present. He defines time as "the causal dimension of spacetime".<sup>2</sup> "Causability", he explains, "fixes the time-order of all spacetime points", and explains the directionality of time. Time-awareness, in turn, derives from the fact that our perceptions affect each other causally. The concepts "earlier" and "later" are made possible by the self-intimating time-order of one's experiences: the sequential occurrence of a pair of experiences, plus the sense that one affects the other (in that the latter is informed by the memory of the former) is all we need, Mellor claims, to arrive at the concept of succession – i.e., facts or events related by earlier-later.<sup>3</sup> Objective time-order is determined by the causal order of facts and events; we make our (corrigible) judgments about objective time-order on the basis of the self-intimating time-order of our perceptions. Misconstrual of correct time-order is certainly possible, but his concern here is the origin of the idea of time-order, not particular judgments about time-order.<sup>4</sup> The idea of time-order itself, on this account, derives just from one's 'seeing' an event precede another, and one sees something like this by virtue of the apparent causal relation between the perceptions involved: "memory's main job" is to let "a perception cause its content to be embodied at another time in another state of mind."<sup>5</sup> Given a grasp of the earlier-later relation, it is by virtue of the characteristic causal contiguity between belief and action that we are able to have thoughts that are temporally indexed to the 'present.'<sup>6</sup> Judgments about what time it is now, and, by extension, judgments about the past and future, derive from a presumption that our actions are generally causally contiguous with their effects. The tensed view of time is just the idea of times

<sup>1</sup> See Mellor, D. H.: *Real Time II*. London 1998, 70 and 84.

<sup>2</sup> Mellor, D. H.: *The Facts of Causation*. London 1995, 237.

<sup>3</sup> Mellor, D. H.: *Real Time II*, 115.

<sup>4</sup> See Roache, Rebecca: "Mellor and Dennett on the Perception of Temporal Order". In: *The Philosophical Quarterly* 49, 1999, 231–238.

<sup>5</sup> Mellor, D. H.: *The Facts of Causation*, 240.

<sup>6</sup> Mellor, D. H. and Lucas, J. R.: "Transcendental Tense." In: *Supplement to the Proceedings of the Aristotelian Society* 72, 1998, 41f.

being earlier or later than the present (thus “past” and “future”); ideas about tensed events, in other words, can be broken down into ideas about the B-series plus the irreducible, token-reflexive idea of the present.<sup>7</sup>

The first part of Mellor’s theory of time-awareness, however, only concerns change in experience and awareness of time-order, not the experience of change. The second part of his theory of time-awareness is his explanation of how it is we come to think of time as, objectively, passing. Armed with the concepts of the present and of the earlier-later relation, we come to think of time as passing by virtue of the following process. Our senses give rise to changes in A-beliefs, thanks to external situations being different at different times. These changes are necessary to action: if I want to hear the six-o-clock news, it is not my having the belief that it is now six-o-clock that spurs me to turn on the radio, but my *getting* the belief that it is now six-o-clock.<sup>8</sup> It is by virtue of changes in my A-beliefs that I view the world as undergoing temporal change: it is change in my belief, as a result of what I sense, that leads me to believe successively – and not incorrectly, from my perspective – that some event is future, then present, and then past.<sup>9</sup> But to ascribe these characteristics to the world is a confusion: A-series beliefs are indispensable in that agency rests on changes in such beliefs, but changes in A-beliefs are not caused by changes in objective A-determinations. A-series beliefs are irreducible to B-series beliefs in the sense of being untranslatable in B-series terms, but what makes A-series beliefs true can be fully and properly articulated in B-series terms.

## II. Two senses of ‘projection’

On a common understanding of the philosophical use of the term ‘projection,’ projection involves mistakenly representing some subjective phenomenal quality as instantiated in physical space or as belonging to an external object.<sup>10</sup> Some accounts of the perception of color follow this line. Such accounts are inspired by Hume’s theory of the projection of sensible qualities: he suggests that properties like color are merely subjective feelings that we take to be properties of – or ‘project upon’ –

<sup>7</sup> Mellor thinks that his view partly resembles Kant’s in several respects. First, the essential later-than concept, and the concept of the present derived from it, could be called a priori, in that they do not rest on the content of any experience (“Transcendental Tense,” 42). Second, since tense is irreducible, yet not based on any experience of tensed objects, we can say that tense is “transcendentally ideal and only empirically real – i.e., not real at all” (ibid.). Finally, when we understand that both our concepts and our judgments of time-order derive from the causal order of perceptions, and time is the dimension of causation, we could say, like Kant, that time just is the form of inner sense (*Real Time II*, 115; see also *The Facts of Causation*, 243).

<sup>8</sup> Mellor, *Real Time II*, 67.

<sup>9</sup> Ibid., 69; see also Mellor: “The Time of Our Lives”. In: *Philosophy at the New Millennium*. Ed. by Anthony O’Hear. Cambridge 2001.

<sup>10</sup> See Baldwin, Thomas: “The Projective Theory of Sensory Content”. In: *The Contents of Experience*. Ed. by Tim Crane. Cambridge 1992.

objects. According to various interpretations of Hume, he also lists attributions of sound, hot and cold, virtue, beauty, and causal necessity as products of this kind of process. But these are really feelings, not genuine properties of objects, so such attribution represents a kind of error: as he puts it, by “gilding and staining all natural objects with the colours borrowed from internal sentiment”, the mind “raises in a manner a new creation.”<sup>11</sup> According to Arthur Falk, it is, in fact, through a process just like this that we come to experience temporal passage. He agrees with Mellor that objective time is just “calendar time” – i.e., a tenselessly-describable time-order. Falk claims that our awareness of passage is a consequence of the mind-dependent “whoosh and whiz” of the continual “flushing and freshening” of perceptual information being mistaken as a property of the events being perceived; he explicitly compares the attribution of this flux to events with the attribution of colors to objects, in characterizing each as the result of a mind-dependent phenomenon being mistaken for an objective quality.<sup>12</sup>

Not everyone agrees with projection as an explanation for the above kinds of judgment. A standard general objection to any kind of projective account derives from a kind of ‘principle of charity’ applied to sense experience: the sort of mistake exemplified by the projection of sensible qualities would constitute a category mistake, and experience just cannot involve category mistakes.<sup>13</sup> Variations on this objection have been offered by C. D. Broad<sup>14</sup> and Sydney Shoemaker,<sup>15</sup> among others; most recently, Barry Stroud has expressed doubt that an empiricist story can be told according to which a feeling or quality can be intelligibly predicated of an object.<sup>16</sup>

By contrast to Falk’s, Mellor’s account does not involve some subjective phenomenon being taken for an objective quality. On Peter Kail’s understanding of the philosophical and psychological use of the metaphor of projection, however, Mellor’s account still counts as projectivist.<sup>17</sup> According to Kail, the role of philosophical projective accounts is to explain a commitment to the world being a certain way when it is not possible to invoke the world’s being that way to explain that commitment. On his broader understanding, a subject S’s commitment to some objective state of affairs counts as a ‘projection’ when:

<sup>11</sup> Hume, David: *An Enquiry Concerning the Principles of Morals*. Ed. by L. A. Selby-Bigge. Oxford. 1975, Appendix I. See Boghossian, Paul and Velleman, David: “Colour as a Secondary Quality”. In: *Mind* 98, 1989, 96.

<sup>12</sup> Falk, Arthur: “Perceiving Temporal Passage: An Indicator of the Nature of Consciousness”. In: *Perspectives on Consciousness*. Ed. by Amita Chatterjee. New Delhi 2003, 125.

<sup>13</sup> See Boghossian and Velleman, “colour” 99–100.

<sup>14</sup> Broad, C. D.: *Scientific Thought*. London 1923.

<sup>15</sup> Shoemaker, Sydney: “Qualities and Qualia: What’s in the Mind?” In: *Philosophy and Phenomenological Research* 50, 1990, 109–131.

<sup>16</sup> Stroud, Barry: “‘Gilding and Staining’ the World with ‘Sentiments’ and ‘Phantasms’”. In: *Hume Studies* 29, 1993, 253–272.

<sup>17</sup> Kail, Peter: “Projection and Necessity in Hume”. In: *European Journal of Philosophy* 9, 2001, 24–54.

- a) the best explanation of the commitment does not advert to the putative facts or properties corresponding to the commitment;
- b) the commitment is not derived or sustained by inference;
- c) the explanation of the commitment essentially involves appeal to psychological facts about S;
- d) the phenomenology of the commitment does not intimate to the subject its best explanation.<sup>18</sup>

This understanding of projection covers, in addition to sentimental projection, a range of phenomena that are sometimes described as instances of projection, such as anthropomorphic or psychological projection. Anthropomorphic projection involves “the representation of non-human objects as possessing human attributes”; psychological projection might include thinking of someone else as angry with you just because you are angry with yourself.<sup>19</sup> Projections fitting Kail’s schema need not fall prey to the standard objection to projectivist accounts. The example of the psychological projection of anger, for example, does not refer to a commitment to someone else literally having one’s own anger, as in the sense of projection objected to by Broad et al; it is just a commitment that is explained by one’s being in a certain kind of psychological state rather than by facts corresponding to the commitment.

Mellor’s account falls under Kail’s schema for projection: his account of time-awareness describes the commitment to objective temporal passage as the consequence of changes in one’s beliefs, rather than as the result of inference or sensitivity to objective A-series determinations; further, the explanation for the commitment is not made evident by its phenomenology.<sup>20</sup> As I intend to explain, a position on time-awareness I take to be implied by Kant’s account of the necessary conditions of coherent experience also meets Kail’s criteria, though with different implications.

### III. *Kant and the experience of time-order*

Though the part of Mellor’s theory describing how we come to believe in the passage of time by virtue of ‘projecting’ change in our beliefs need not be subject to standard objections to projectivism, there is still something odd about it. With regard to theories of time that deny the reality of change while trying to explain the illusion of change, Michael Dummett once complained that they seem self-refuting, noting that, “even if the world is static, our apprehension of it changes.”<sup>21</sup> P. J. Zwart has gone so far as to claim that, since any act of thinking or asserting requires succession, any attempt to deny the passage of time is self-falsifying.<sup>22</sup> What is inescapable

<sup>18</sup> Kail, “Projection and Necessity in Hume”, 27.

<sup>19</sup> Kail, “Projection and Necessity in Hume”, 32.

<sup>20</sup> As noted by Kail.

<sup>21</sup> Dummett, Michael: “A Defense of McTaggart’s Proof of the Unreality of Time”. In: *Philosophical Review* 69, 1960, 503.

<sup>22</sup> Zwart, P. J.: *About Time*. Amsterdam 1976, 4.

is that any reference to the illusion of change must make reference to changing apprehensions. Merely accounting for change in apprehension is not a problem if you think, as Mellor does, that change can be understood timelessly. But he says, as we have seen, that it is not the (tenseless) sequential *having* of different beliefs but the *getting* of new beliefs that spurs us to action. What is this, Dummett might say, but the becoming of new mental states? And if the mind is part of nature, then the getting of a mental state is an event in the world. It might seem, then, that Mellor's own theory requires that some events exhibit temporal becoming.

Mellor's reply would be to say that the "getting" of new beliefs he is referring to is just subjectively attributed to becoming. From an objective standpoint, there really is only a tenselessly describable order of causally related events in the world and correlated mental states. Mellor's account seems to suggest that agency requires the *representation* to oneself of the becoming of events and, consequently, the representation of tensed change in events and one's corresponding belief-states.<sup>23</sup> But this would not require him to concede the reality of tensed change. The need to subjectively represent tensed change is consistent with a world lacking tensed change.

In this context, then, the recognition of the need to represent tensed change would be an insignificant concession. What I suggest in the following, however, is that arguments that are part of Kant's core effort in his *Critique of Pure Reason* reveal a more significant role for the representation of tensed change.<sup>24</sup>

The debate over passage, as well as the A-series/B-series distinction, would have been alien to Kant. His primary concern in the *Analytic* is to establish the metaphysical foundations of Newtonian natural science, by explaining that combination of the manifold of experience in terms of a world subject to universalizable rules pertaining to conservation, causation, and reciprocal interaction is constitutive of coherent experience.<sup>25</sup> What his attitude might be to the reality of temporal passage has never been closely examined, in part because the rules of mathematical physics he is directly concerned with do not obviously require more than tenseless B-relations. Neither, of course, is he explicitly concerned with the reality of passage in the contemporary sense. However, contrary to scholars such as Peter McInerney, who deny that Kant's theory of time-consciousness accounts for our awareness of temporal passage,<sup>26</sup> it is implied by some of Kant's reasoning that conceptualization of the world in terms of passage is a necessary condition of perceptual representation itself. There are two stages to drawing this conclusion from his work. First, he argues

<sup>23</sup> It is not necessary to my argument that Mellor concede this, but this seems to be what he must have in mind – if he is not to be conceding the reality of passage with regard to the occurrence of mental states as events in the world – when he emphasizes the representation of change via the *getting* of beliefs over the successive *having* of different beliefs.

<sup>24</sup> I wish to stress that the following is not intended as an interpretation of Kant, but an extrapolation: it is an application of some of his claims to a problem he did not himself address.

<sup>25</sup> For an excellent treatment of Kant's attempts to find a metaphysical grounding for Newton's physics, see Friedman, Michael: *Kant and the Exact Sciences*. Cambridge 1992.

<sup>26</sup> McInerney, Peter: *Time and Experience*. Philadelphia 1991, 93.

that the very thought of a subjective order of experience requires referencing the time of perceptions, and mental states generally, to objective time – that is to say, thinking of subjective mental events as determinately located in the one objective time-series. Second, it is implied by his position on representation and time-awareness that the necessary conditions of complex representation include the conceptualization of the self-world relation in terms of one's indexed temporal location with regard to (a) the progressive incorporation of past experiences in the construction of complex representations, and (b) the representation of the conditions of experience as dependent on one's experiential path as a spatially located subject. When combined with the first implication of Kant's reasoning, these necessary conditions of representation suggest that conceptualization of the world in terms of the passage of time is not only necessary to action but constitutive of coherent experience. The consequence of this conclusion would be an alternate projectivist theory with implications regarding how the world can intelligibly be described.

Kant's differences with Mellor begin with the fact that he most emphatically did *not* agree that the time-order of one's experiences is self-intimating. Mellor claims that the order of one's own perceptions is self-intimating because we sense that one perception is affected by another (i.e., as having content that includes or is influenced by the content of a perception conceived of as having occurred at a different time); the subsequent judgment about the temporal order of perceptions is derived from their perceived causal order. But Kant explains why it is only through correlating the occurrence of current or remembered perceptions with events in the world that we think of one perception as succeeding another, and thus as being affected by another. He did indeed think that all experience is successive in form, and that it is in this sense that time is the a priori form of experience. But a succession of experiences is not the same as an experience of succession. At any given moment, the content of experience is a manifold deriving from both remembered and current perception. What of one's current mental state derives from a present perception, and how to order in time those parts of one's current state representing past experiences, is not just self-evident.<sup>27</sup> Given any present, complex mental state with, say, contents E1 and E2, where E1 and E2 derive from past experiences, we can equally well represent the sequence of past states as E1-E2 or E2-E1. The content of any perceptual state in itself does not mandate a particular place in a temporal sequence.<sup>28</sup> Absolute time is not an object of perception, and our experiences do not come marked with their location in time.<sup>29</sup> Nor is there any phenomenological feature like vivacity that reliably indicates the time of a perception, and even if there were we would have to already understand the relationship between that feature

<sup>27</sup> See KrV: A 99. All references to the first *Critique* use the pagination of the Academy edition. English translations come from Kant, Immanuel: *Critique of Pure Reason*. Ed. and trans. Paul Guyer and Allen Wood. Cambridge 1998.

<sup>28</sup> See Guyer, Paul: *Kant and the Claims of Knowledge*. Cambridge 1987, 306f. and Dicker, Georges: *Kant's Theory of Knowledge*. Oxford 2004, 198.

<sup>29</sup> See KrV, A 183/B 226 and KrV, A 215/B 262.

and time for one to be taken as indicating the other. This is the reason why Kant thinks that, for a succession of experiences to even be thought of as a succession, the component experiences must be thought of as occurring in a determinate temporal order; and for them to be thought of as occurring in a determinate temporal order they must be distinguished from, and related to, an order of things that explains and determines their order – i.e., an *objective* reality.<sup>30</sup> Thus P. F. Strawson's contention that the only way to give content to the thought of oneself as a subject of experiences with determinate temporal relations one to another is via the "idea of a system of temporal relations which comprehends more than those experiences themselves."<sup>31</sup> The only way to give content to this thought, in other words, is to think of the elements of one's manifold present state as related to the successive states of independent objects, or to stages of external processes.

Mellor sees no problem in saying that our idea of the relation of temporal precedence is derived directly from perception, since, on his view,

[w]e perceive time order all the time, whenever we see motion or any other change: thus to see a clock's second hand is moving clockwise is to see for example that it passes the figure '1' on the clock *before* it passes the figure '2.' [...] We are constantly perceiving time order in the world around us, as well as in our own experiences.<sup>32</sup>

This presumes too much. If, as Augustine claimed, only the present moment is directly perceived, I must *interpret* my present mental/perceptual state as a representation of succession or duration by taking some part of it to be a memory of a past state or event.<sup>33</sup> But in order to do so I must employ the concept of precedence, and the issue is the origin of that concept. The relation of temporal precedence cannot be a relation that holds between the elements of one's mental contents at any moment, because this relation by definition only holds between non-simultaneous items.<sup>34</sup>

Mellor characterizes Kant's view as stating that time and causation are mere "figments of the mind" because they must be presupposed as a condition of coherent

<sup>30</sup> See Strawson, P. F.: *The Bounds of Sense*. New York 1966, 124.

<sup>31</sup> See Strawson, P. F.: *The Bounds of Sense*, 126.

<sup>32</sup> Mellor, *The Facts of Causation*, 238.

<sup>33</sup> St. Augustine: *Confessions*. Trans. by R. S. Pine-Coffin. Middlesex 1961. See Guyer, *Kant and the Claims of Knowledge*, 302f., for a discussion of this point as it relates to Kant. Please note that the claim that the present moment is directly perceived does not entail presentism, the metaphysical doctrine that only the present exists. Further, "present" in "present moment" is intended to be taken loosely, such that it takes into account inertial frames and limits in, e.g., the speed of light.

<sup>34</sup> See Mundle, C. K.: "Augustine's Pervasive Error Concerning Time". In: *Philosophy* 41, April 1966, 166. The alternative to Augustine's position is a "specious present" view, according to which acts of awareness, and the objects of those acts, are temporally extended. Such accounts have been subject to serious objections; see, for example, Mabbott, J. D.: "Our Direct Experience of Time". In *The Philosophy of Time*. Ed. Richard Gale. Garden City. 1967. Kant's theory of experience pretty directly involves the rejection of the specious present theory of time-awareness; see Melnick, Arthur: *Kant's Analogies of Experience*. Chicago. 1973, 85–88.



experience.<sup>35</sup> He replies that this would fail to account for the role of a cause as a means to an end, and the effects of means on the chances of the effect. Time and causation, therefore, must be *more* than a mere presupposition. Even if Mellor is right, though, this would not undermine the claim that time and causation are indeed presupposed as a necessary condition of experience.

Kant thinks that content is relevant to determining temporal order, but, like Mellor, he is primarily concerned with the origin of the very idea or representation of temporal order, rather than order construal.<sup>36</sup> Mellor thinks that the actual order of a series of events may be inferred from their content, but claims that the initial awareness of order, and the idea of order itself, comes just from the fact that one perception comes after another and seems to be affected by the first.<sup>37</sup> Kant disagrees: without thinking of the perceptions in question as related to external events, there is no way to give content, at any moment, to the thought of one's current, complex mental state as the representation of a sequence with a determinate order, or indeed as a sequence at all.

This line of reasoning leads to Kant's central claim in his mature work on mental representation: namely, that the application of concepts like substance and cause to experience – in other words the representation of perceptual experience as experience of an objective world – is necessary to making judgments as to the order of one's own subjective experiences, and thus to coherent experience itself. Thus his claim that “all the determining grounds of my existence that can be encountered in me are representations, and as such they themselves need something persisting distinct from them, in relation to which their change, and thus my existence in the time in which they change, can be determined.”<sup>38</sup>

An important point to emphasize here is that, though this account speaks of the necessity of distinguishing the subjective order of appearances and an objective order of events, and though part of this process involves understanding that some of one's perceptions reference events that take place at a different time than that of the perception, this does not suggest two truly distinct time-orders. According to Kant's account, it is precisely by understanding mental and external events as all located in the *one and only* time that recognition of the order of one's own perceptions is possible: in making the essential distinction between an objective order of events and a subjective order of experiences, and understanding the subjective order as determined by one's encounters with the world, one is also understanding the occurrence

<sup>35</sup> Mellor, *The Facts of Causation*, 237.

<sup>36</sup> As argued by Roache.

<sup>37</sup> See Roache, “Mellor and Dennett on the Perception of Temporal Order”, 235.

<sup>38</sup> KrV, B xxx/x n.: “alle Bestimmungsgründe meines Daseins, die in mir angetroffen werden können, sind Vorstellungen, und bedürfen als solche selbst ein von ihnen unterschiedenes Beharrliches, worauf in Beziehung der Wechsel derselben, mithin mein Dasein in der Zeit, darin sie wechseln, bestimmt werden könne.” There are more idealistic readings of Kant than the one I have delivered here, but the realist/idealist controversy does not affect the modest transcendental argument I intend to derive from Kant's reasoning.

of each subjective state as itself having a determinate temporal location relative to represented objective events and states of affairs. Talk of ‘distinguishing’ between subjective and objective does not mean that present mental states are supposed to be part of a different *time* than objective time; on the contrary, it is by understanding the complex temporal relationship between a mental state, its content, and the event or state-of-affairs the content references within one comprehensive time-line that the distinction is made possible. No such relationship would be thinkable if truly distinct time-orders were in question; as Kant explains, with distinct time-orders the thought of temporal relations between events in one and events in the other would be unintelligible.<sup>39</sup>

#### *IV. Representation in terms of passage*

Kant’s position on the construction of temporal experience implies, as it turns out, that the possibility of time-determination and complex representation is bound up with representation specifically in terms of the passage of time. This comes out in the *Analytic* in two main respects. This fact is reflected, first, in his point that complex representation requires reproduction, or retention, of previous perceptions and recognition of these reproductions as representations of past perceptions relevant to the active construction of a particular picture of the world. In the first version of his *Transcendental Deduction* he points out that the representation of any extended process or enduring object, or any coherent experience whatsoever, would be impossible if one forgot all one’s experiences from one moment to the next, or failed to recognize that the perceptions one retains have been progressively combined.<sup>40</sup> Past experiences have to be conceived of both as past and as having contributed to the construction of one’s complex representations, where keeping track of the progress of the construction is essential to their successful generation. Kant uses the elemental combinatorial activity of counting to stand in for cognitive operations leading to any sort of complex representation:<sup>41</sup>

Without consciousness that that which we think is the very same as what we thought a moment before, all reproduction in the series of representations would be in vain. For it would be a new representation in our current state, which would not belong at all to the act through which it had been gradually generated, and its manifold would never constitute a whole [...]. If, in counting, I forget that the units that now hover before my senses were successively added to each other by me, then I would not cognize the generation of the multitude through this successive addition of one to the other, and consequently I would not cognize the number [...].<sup>42</sup>

<sup>39</sup> See KrV, A 188–189/B 231–232.

<sup>40</sup> See KrV, A 102–103.

<sup>41</sup> It would at the least take further argument to show that counting, or merely drawing a line in thought, requires a priori concepts like substance and cause (see Guyer, *Kant and the Claims of Knowledge* 93).

<sup>42</sup> KrV, A 103: Ohne Bewußtsein, daß das, was wir denken, eben dasselbe sei, was wir einen Augenblick zuvor dachten, würde alle Reproduction in der Reihe der Vorstellungen vergeb-

Robert Paul Wolff draws on Kant's example of the mental activity of counting in explaining the need for a "recognition" of a progressive, rule-governed synthesis of experience as a necessary condition of complex representation:

When I count a row of twelve stones, I look at the first one and say "one." Then I look at the second, think of the first, and say "two." [...] The process is repeated up to "twelve," at which time I am aware of myself as having performed a series of *connected* acts. If I merely found myself saying "twelve" after a while, or if I could recall previous utterances of "one," etc., but didn't recognize them as the earlier stages of a single activity whose culmination was the "twelve," then I could not know that I had just counted twelve objects. [...] When I count the twelve stones, I do not recall any past representations which please my fancy. I am bound by the rules of counting to label the first stone "one." I must then recall that "one" while labeling the second, and I must recall it as "one," not as "three" or "fifteen." I must continue on, obeying the rules, until I have reached "twelve." I then recall the previous eleven steps, and I am aware at that point that those recollected steps were performed *in accordance with the rule*. This is what we meant when we said that the steps had to be remembered as a series of *connected* acts. They are connected by being successive stages of a single rule-directed activity.<sup>43</sup>

As discussed earlier, the "rules" in most cases of complex representation would involve the application of the concept of an objective world; the organization and combination of the reproduced perceptions is accomplished by reference to events in the world. The representation of any event or process, or the representation of the endurance of an object, requires conceptualization of the representation as involving sequential and causally determined past events or perceptions; to this, Kant adds that such representations are generated over time, by successive addition and progressive construction. As Mellor notes, simple accretion, increase, or change can be described tenselessly. But, as Wolff's explanation suggests, the kind of representation in question cannot be the result of simply having had, and remembering having had, one perception at one time and another perception at another time. The execution of a rule for the combination of thoughts or experiences over time requires, for the successful execution of the rule, execution of that rule *according to where one is in the process at any given point*. Arriving, say, at the number "seven" while counting only has the meaning it has for us because we are thinking in terms of presently being engaged in a process of which the previous stages one through six have been executed. The same is true, Kant's position suggests, for the progressive construction of any complex representation, such as the representation of an event.

lich sein. Denn es wäre eine neue Vorstellung im jetzigen Zustande, die zu dem Actus, wodurch sie nach und nach hat erzeugt werden sollen, gar nicht gehörte, und das Mannigfaltige derselben würde immer kein Ganzes ausmachen [...] Vergesse ich im Zählen, daß die Einheiten, die mir jetzt vor Sinnen schweben, nach und nach zu einander von mir hinzugehan worden sind, so würde ich die Erzeugung der Menge, durch diese successive Hinzuthuung von Einem zu Einem, mithin auch nicht die Zahl erkennen [...]."

<sup>43</sup> Wolff, Robert Paul: "A Reconstruction of the Argument of the Subjective Deduction". In: *Kant: A Collection of Critical Essays*. Ed. R. P. Wolff. Notre Dame 1968, 116f. Kant's – and Wolff's – main point here has to do with the rules employed in the synthesis of representations, but I am more interested in drawing out what the theory implies about our relationship to time.

As he describes it, complex representation requires a process of synthesis carried out from a tensed perspective: at each point in the process of, say, counting, one must be thinking in terms of being at that point in the process – and thus of parts of one's own ongoing act of rule-governed synthesis as past or present. This perspectival element of the generative process of representation is an ineluctable contribution to the very possibility of the process. But if representation requires conceptual synthesis in terms of the becoming and A-series determinations of subjective states, then the representation of passage with regard to one's own mental acts is indispensable to coherent experience. Since one's mental acts must be conceptualized as occurrences that are part of the one objective time, the world must be thought of in terms of the passage of time.

The second respect in which the representation of passage is, for Kant, a necessary condition of experience as we know it has to do in particular with the future – specifically, its *conditional accessibility*. This fact is elucidated in his Analogies of Experience, in which he argues, contra Hume, that the concepts of substance and cause are a priori. In this section of the *Critique* Kant makes the case that we have to organize our experiences according to the notion that those experiences refer to a world of persistent objects and events whose order is determined by rules. This assumption contributes to the possibility of distinguishing between a subjective order of experiences and an objective order of events by providing the basis for judgments about the temporal order of one's own experiences. Conceptualization of the world in terms of substance and cause is necessary because having a thought as to the order of one's own experiences involves thinking of the order in which they occur as being related to external states of affairs and events with their own temporal relations: an experience must be thought to have become possible by virtue of the fulfillment of the conditions necessary to access some appearance or to bring about some external event related to the experience. This, in turn, means that the construction of experience involves an ongoing synthesis of experiences according to one's current temporal location: i.e., according to the thought of some experiences as occurring by virtue of some external conditions having been fulfilled, and some experiences as anticipated by virtue of some external conditions in the process of being fulfilled.

Treatments of Kant by Strawson,<sup>44</sup> and, later, Quassim Cassam,<sup>45</sup> are helpful in understanding this point. They each emphasize that Kant's theory of the necessary conditions of coherent experience implies self-representation as a subject traveling a determinate experiential route through a world with alternate possible experiential routes. As beings for whom all experience is successive, and for whom the idea of a non-spatial external world is unintelligible, the notion of accessibility based on an incidental series of experiences involves a description in terms of both space and time. As Strawson puts it,

<sup>44</sup> Strawson, *The Bounds of Sense*.

<sup>45</sup> Cassam, Quassim: *Self and World*. Oxford 1997.

Suppose we think first simply of a temporal series of representations or experiences. [...] We may then simply think of the members of the series as temporally ordered in relation to each other. [...] [But] we see that these internal temporal relations of the members of the series are quite inadequate to sustain or give any content to the idea of *the subject's awareness of himself as having* such-and-such an experience at such-and-such a time [...]. To give content to this idea we need, at least, the idea of a system of temporal relations which comprehends more than those experiences themselves. [...] Those experiences, therefore, or some of them, must be taken by [the subject] to be experiences *of* things [...] which possess among themselves the temporal relations of this wider system. But there is only one way in which perceived things or processes can supply a system of temporal relations independent of the order of the subject's perceptions of them – viz., by *lasting* and being *re-encounterable* in temporally different perceptual experiences.<sup>46</sup>

Cassam explains how the very notion of an independent time-order of things and events rests on assumptions about one's spatio-temporal localization:

To get a grip on the idea of perception of what can also exist unperceived, one must think of perception as having certain spatio-temporal enabling conditions, such that in order to perceive something one must be appropriately located – both spatially and temporally – with respect to it [...] [this assumption] enables one to account for the fact that a perceivable object is not actually perceived by appealing to the possibility that the spatio-temporal enabling conditions of perception are not met with respect to it.<sup>47</sup>

For our experience to mean anything to us, we must think of ourselves as enduring subjects of a sequence of perceptions referring to an objective order of things and events. This involves self-representation as spatially located and perceptually limited, such that spatio-temporal conditions of perception have to be met for given experiences to be possible. We couldn't make sense of the world if we didn't suppose that future events are inaccessible to present experience; so the possibility of an experience needs to be conceptualized from the start as dependent on one's current location in time and space. If this reasoning is correct, any given appearance must be conceived of as being/having been experientially inaccessible until it is/was brought about by external events and/or changes in one's perceptual standpoint vis-à-vis the world. But then experience cannot be conceptualized simply in terms of the subject's being in one place at one time, and in another place at another time. The kind of conceptualization involved is one that involves not merely a tenseless simultaneity relation between observer and observed, but the 'arrival' or realization of hitherto perceptually inaccessible appearances. This realization cannot be understood without temporal becoming because it is tied up with the notion, not just of different experiences at different times, but of changes in experience based on one's changing temporal position relative to present and possible objects of experience. So the 'now' of experience is part of making sense of experience in the first place, not something derived from or superimposed on experience. Thus this account implies that, because

<sup>46</sup> Strawson, *The Bounds of Sense*, 126f.

<sup>47</sup> Cassam, *Self and World*, 36f.; cf. Evans, Gareth: "Things Without the Mind – A Commentary on Chapter Two of Strawson's *Individual*". In: *Philosophical Subjects: Essays Presented to P. F. Strawson*. Ed. Van Stet. Oxford 1980.

the idea of perceptual limits dependent on one's experiential path contains indispensable reference to tense, representation of the world in terms not only of change but also of passage is part of the necessary conditions of coherent experience.

This reasoning permits a diagnosis of concerns over allowing only a timeless order of objective states of affairs. The perceptions involved in generating representations of the world need to be conceptualized not only as having a relationship to an independent order of events and states of affairs, but also as having been progressively accrued and synthesized by a subject the meaning of whose activity of synthesis is dependent on her position in time, and whose perceptions are both enabled and limited by her position in time. This conceptualization of experience is conceptualization in terms of tensed change in events and/or one's perceptual standpoint. While one may disagree with Kant's views about the necessary conditions of time-awareness, this line of reasoning would help explain the difficulty some find in anti-realist views like Mellor's. Kant's position implies that change in perceptual belief is conceptually tied to corresponding objective change as a condition of the very possibility of coherent experience. As noted earlier, the very distinction between reality and a mere sequence of perceptions depends on the thought of a temporal relationship between them – that is to say, their unity in one time. The need to conceptualize change in experience in terms of change in temporal position thus would entail representation of change in terms of the objective passage of time.<sup>48</sup> The awareness Mellor cites of the “getting” of new beliefs (including perceptual beliefs) would then be parasitical on the representation of temporal passage as a feature of the world: if representation of *subjective* becoming rests on the generation of representations according to temporally indexed rule application, as well as the representation of the conditional accessibility of objects and events according to temporal position, it also rests on the representation of *objective* becoming. To Mellor's claim that the representation of passage is necessary to agency, then, Kant could have added the claim that it is necessary to experience itself.

#### V. *Representation and the reality of time: a modest transcendental argument*

Like Mellor's theory, the Kantian theory outlined above holds that time-awareness is arrived at by projection. For Kant, the representation of the world in terms of temporal passage, which permits the progressive generation of experience and the representation of perceptual accessibility, is necessary to the representation of change in subjective states and the unification of experience in judgment. Thus Kail's criteria are satisfied: the commitment to objective change derives from subjective conditions of representation as opposed to experience or inference, and its explanation does not derive from its phenomenology. But where Mellor's projectiv-

<sup>48</sup> And it is this link, one might further argue, that translates phenomenologically into that lived sense of flow or passage cited by Husserl and others.

ist theory allows an intelligible standpoint from which the world is timeless, Kant's reasoning suggests that (a) the subjective order of experiences can be understood only in the context of the one objective time-order, (b) complex representation requires conceptualization of experience in terms of temporal position, and thus (c) empirical self-knowledge (i.e., knowledge of oneself as the subject of a determinate sequence of states) requires that one think in terms of the objective passage of time. For Mellor we can make sense of our experience without attributing passage to events in the world; Kant's claims suggest we cannot. Kant's anti-Cartesian, Copernican revolution is to explain how subjective experience is built on an understanding of objectivity, rather than vice-versa. If passage is part of that understanding, we cannot treat the reality of passage as a mere inappropriate interpretation of subjective experience: to reject passage is to reject the very conceptual framework on which we formulate the experience we hope to reinterpret. With regard to the world we know, the world that is the object of our perceptual judgments, we cannot do without the passage of time.

As in Mellor, this theory entails that the idea of the passage of time is both indispensable and irreducible. But in this case that conclusion has stronger implications. Mellor's conception is of an experienced world of objects and events that in some sense we must treat as undergoing temporal passage, but which is really tenseless. Kant's reasoning implies that the world we know cannot be conceptualized without passage. If so, Mellor's theory is literally unintelligible, because it posits a world – the world we experience – without passage. If our relationship with the world must be thought of in terms of the progressive generation of temporally indexed representations, as well as perceptual accessibility determined by our changing position in space and time, we must think of the world in terms of past, present, and future. We are not free, according to this view, meaningfully or coherently to represent the world, or events in the world, as not exhibiting A-series determinations. This is the sort of indispensability Stroud has cited as the basis for one's being entitled to ignore skeptical positions questioning the instantiation of certain concepts. He has argued (specifically, in his case, with regard to the concept of color) that if a concept is part of a conceptual framework that is itself necessary to the standpoint under which the application of the concept can be questioned, skepticism about its application to reality cannot be coherently raised, and so may, with justification, be disregarded.<sup>49</sup> He has called this kind of argument a "modest" transcendental argument. It is a transcendental argument in that it concerns necessary conditions for applying a certain concept; it is modest in the sense that it does not purport to prove that the skeptic is mistaken by showing that the concept in question is actually instantiated. The kind of entitlement to concept application Stroud alludes to is similar to the kind of entitlement established under what Georges Dicker has called "weak" transcendental idealism.<sup>50</sup> Unlike strong transcendental idealism, under

<sup>49</sup> Stroud, Barry: *The Quest for Reality*. Oxford, 2000.

<sup>50</sup> Dicker, *Kant's Theory of Knowledge*.

weak transcendental idealism our entitlement to describe reality in some manner derives not from a demonstration that reality must really be that way, but from a demonstration that that aspect of reality cannot intelligibly be questioned or supposed to be different. If Kant is right in some of his central claims regarding the necessary conditions of complex representation, this very sort of argument is available with regard to the intelligibility of a world without the passage of time.