



## On the Mind-Dependence of Temporal Becoming

Lynn Rudder Baker

*Philosophy and Phenomenological Research*, Vol. 39, No. 3. (Mar., 1979), pp. 341-357.

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## ON THE MIND-DEPENDENCE OF TEMPORAL BECOMING\*

In all the discussions of the thesis of the mind-dependence of temporal becoming, there has been relatively little effort to explore and develop the thesis itself: What is meant by *mind-dependence* in the context of temporal becoming? The overriding aim of the most prominent advocate of the mind-dependence thesis, Adolf Grünbaum, has been able to show that becoming is unlike the temporal relations of succession and simultaneity in that becoming is not a mind-independent feature of the physical universe. The controversy spawned by the mind-dependence thesis, however, has made it increasingly urgent to clarify the thesis. What follows is an elaboration of what is and is not involved in Grünbaum's claim that temporal becoming is mind-dependent.<sup>1</sup>

### I

Given that events are ordered by the physical relations of *later than* and *simultaneous with*, the question of temporal becoming is the question of what it means for events to be transiently past, present, or future. Since past events are those earlier than present events,

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\* This work was supported by an Andrew Mellon Postdoctoral Fellowship in Philosophy at the University of Pittsburgh, 1974-75. I am especially grateful to Professor Adolf Grünbaum for his seminal work on the nature of time and for his extensive and illuminating comments on several earlier drafts of this paper; and to Professor Annette Baier for many helpful criticisms and suggestions. A shortened version of this paper was read at a Philosophy Colloquium at the Virginia Polytechnic Institute and State University on February 13, 1976.

<sup>1</sup> See Adolf Grünbaum, "The Meaning of Time," *Basic Issues in the Philosophy of Time*, eds. Eugene Freeman and Wilfrid Sellars (LaSalle, Ill.: The Open Court Publishing Company, 1971), pp. 195-228; *Modern Science and Zeno's Paradoxes* (London: George Allen and Unwin, Ltd., 1968); *Philosophical Problems of Space and Time* 2nd ed. (Dordrecht-Holland: D. Reidel Publishing Company, 1973), Ch. 10. A reconstruction and defense of the central argument for the mind-dependence thesis is given in my "Temporal Becoming: The Argument from Physics," *The Philosophical Forum*, 6 (1974-75), pp. 218-236. Criticisms of the thesis may be found in Richard Gale, *The Language of time* (New York: The Humanities Press, 1968); Frederick Ferré, "Grünbaum on Temporal Becoming: A Critique," *International Philosophical Quarterly*, 12 (1972), pp. 426-445; H. A. C. Dobbs, "The 'Present' in Physics," *British Journal for the Philosophy of Science*, 19 (1969), pp. 317-324. A penetrating exploration of the issue of mind-dependence in a number of contexts, among them temporal becoming, is found in Nicholas Rescher's *Conceptual Idealism* (Oxford: Basil Blackwell, 1973).

and future events are those later than present ones, the problem reduces to the question of what is involved in events' *becoming present* or *occurring now*. The relevant sense of *occurring now* is the tensed sense which allows for the transiency of the present: If it is true to say at time *t* that an event is occurring now, then it is not true to say at other times that the event is occurring now. As Grünbaum states his thesis: "Becoming is mind-dependent because it is not an attribute of physical events per se but requires the occurrence of certain *conceptualized conscious experiences* of the occurrence of physical events."<sup>2</sup> A necessary condition for a physical event E to qualify at a given time as *occurring now* or *becoming present* is that some mind-possessing entity M be

conceptually aware of experiencing at that time either the event itself or another event simultaneous with it in M's reference frame . . . . What then is the content of M's conceptual awareness at time *t* that he *is experiencing* a certain event *at that time*? M's experience of the event at time *t* is coupled with an awareness of the temporal coincidence of his experience of the event with a state of *knowing* that he has that experience at all. In other words, M experiences the event at *t* and knows that he is experiencing it.<sup>3</sup>

The stated condition for a physical event to qualify at *t* as occurring now is only a necessary condition; to obtain a sufficient condition, we must require that the physical event be quasi-simultaneous with the event of complex awareness. In this way, an event such as the explosion of a star which occurs millions of years before it is experienced, does not qualify as occurring now at the time at which it is experienced. But an explosion in the next room, the experience of which both satisfies the condition of conceptual awareness and is nearly simultaneous with the explosion, would qualify at that time as occurring now. The required temporal coincidence of M's hearing an explosion and M's awareness that he is having that experience insures that the hearing of the explosion cannot qualify as occurring now on some later occasion when M remembers hearing the explosion. In the case of a mental event, such as pain, there is no distinction between the event and the experience of it; and experience (i.e., a mental event) may qualify at *t* as occurring now if it meets the stated awareness requirement. Thus the necessary condition for a physical event to qualify at *t* as occurring now is also a sufficient condition for

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<sup>2</sup> "The Meaning of Time," p. 197. Emphasis his.

<sup>3</sup> *Ibid.*, p. 207. Emphasis his.

a mental event so to qualify at *t*, and the physical event qualifies at *t* as occurring now only derivatively, by virtue of being quasi-simultaneous with an experience which qualifies at *t* as occurring now.

It can plausibly be maintained that all experience is self-conscious in the way required by the condition of judgmental or conceptual awareness, that, for example, one never sees anything without (in some sense) being aware that one is seeing it. But this, if true, is no objection to Grünbaum; for it is only to say that most or all of our awarenesses qualify as occurring now at the times at which they occur. The fact that, according to the above condition, all *judgmental* awarenesses become present does not mean that becoming present or occurring now is an unrecognizable aspect of our experience—just as the fact that all sensory experience is of extended things does not mean that extension is unrecognizable. The point of Grünbaum's condition is to insure that M's level of awareness be high enough to put M in a position to make a judgment about it. Say that at *t* there is a steady drone in the background, which M is not aware of hearing but which M would be aware of hearing if he changed the focus of his attention; Grünbaum's condition rules out such a case of non-judgmental awareness as an awareness which would qualify the background noise as occurring now.

The condition of judgmental awareness is admittedly circular in the following nonvicious sense: For an event E to qualify at *t* as occurring now, someone must be aware at *t* that he is experiencing E (or another event). And this, Grünbaum notes, is tantamount to judging at *t*: I am experiencing E now.<sup>4</sup> But since Grünbaum is not claiming to have defined 'now' in terms of tenseless relations, this circularity merely reveals the way in which the attribute now is to be understood in terms of experience. Since the aim is to give an experiential account of the ongoing "now," there is no vicious circularity in making it a condition for an event's qualifying at *t* as occurring now that the event (or another one) he experienced at *t* as occurring now. Any adequate account of the present in terms of experience will have this nonvicious circularity, inasmuch as becoming seems to be an ineliminable feature of our experience: the content of whatever experience qualifies E at *t* as occurring now must include someone's awareness at *t* of some event as occurring at that time.<sup>5</sup>

<sup>4</sup> *Ibid.*, p. 209.

<sup>5</sup> It should be recalled that any event simultaneous with an event that qualifies at *t* as occurring now itself qualifies at *t* as occurring now; thus there is no infinite regress of mental events to account for the nowness of a given event. For a fuller discussion of this point, see my "Temporal Becoming: The Argument from Physics."

Grünbaum's thesis can be cast as a claim about the warranted assertibility of statements such as 'E is occurring now': An event E qualifies at *t* as occurring now only if someone is in a position to assert at *t* that E (or another event) is occurring now, and being in a position to assert at *t* that E is occurring now requires judgmental awareness of E (or another event) as occurring at that time.<sup>6</sup> Although judgmental awareness is required for *any* assertion, the mind-dependence claim is that the characterization of an event as occurring now is of a special sort: the event would not have the property attributed to it apart from the judgmental awareness that makes possible the attribution. In judging at a time *t* that E is occurring now, we may be doing either or both of two things:

- (1) identifying E as belonging to a particular simultaneity class (viz., the class of events simultaneous with the utterance); or
- (2) characterizing E as having a particular adverbial attribute (viz., belonging to the present) at that time.

(1) The identification of E as belonging to a particularly simultaneity class can be made by judgments such as 'E occurs at 3:00' or 'E is simultaneous with F' as well as by 'E is occurring now' (said at 3:00): 'E is occurring now' said at *t* and 'E occurs at *t*' both identify the same time, namely *t*, but the former uses a mind-involving characterization to identify it while the latter does not. Since the same simultaneity class can be identified either by a mind-independent characterization or by a mind-involving one, what is claimed to be mind-dependent is *not* the fact that E is identifiable as belonging to the same simultaneity class as a judgment that E is occurring now. Rather, the thesis of the mind-dependence of becoming concerns the role of judgmental awareness in the characterization of E as occurring now.

(2) E may be characterized as belonging to the present for at least two different purposes: (i) At *t* we may identify what is present by means of E. E.g., two children vie for a single peephole to watch a baseball game; the one without the view asks, "What's happening now?" The other child identifies what is present by saying, "Hank

<sup>6</sup> One way that a mind-dependence theorist could understand the difference between E's qualifying at *t* as *occurring now* and E's qualifying as later than F would be to hold with, e.g., J. J. C. Smart (*Philosophy and Scientific Realism*, New York: The Humanities Press, 1963, pp. 132-142), that "now" is language-dependent in that an event occurs now only if there is an appropriate linguistic token with which it is simultaneous. Although such an account is headed in the right direction, Grünbaum rejects it (*Modern Science*, p. 19, fn. 14) as being too narrow: an event can occur now even when a judgment that it is occurring now is unexpressed.

Aaron's coming to bat now." An identification of *which* event constitutes the present, if achieved by a characterization of an event as occurring now, requires an act of judgmental awareness. (ii) At *t*, we may identify E by means of what is present. E.g., a third child rushes up to the peephole and asks, "When is Hank Aaron coming to bat?" The answer is, "Hank Aaron's coming to bat now." In this case, rather than finding out at *t* *which* event is occurring now, the child finds out whether a *given* event has the attribute of belonging to the present.<sup>7</sup> In both cases, the characterization of the event (Hank Aaron's coming to bat) as belonging to the present is mind-dependent because a necessary condition for that event's having the attribute at *t* of occurring now is that someone be judgmentally aware of it (or of a simultaneous event) at *t*. On the other hand, the characterization of an event as being simultaneous with some other event is not similarly mind-dependent, because the relation of simultaneity, unlike the attribute of occurring now, can be explicated without reference to anyone's awareness.

Grünbaum illustrates the sense in which he claims becoming to be mind-dependent by pointing to, but not elaborating upon, an analogy between secondary qualities, such as color and taste, and the attribute now. Since critics<sup>8</sup> seize upon the disanalogies to cast doubt on the mind-dependence thesis, it is appropriate to acknowledge the limits of the analogy. Grünbaum, for example, points out that in comparing nowness and color attributes such as redness, he is not assuming that nowness is a sensory quality.<sup>9</sup> Critics have cogently argued that nowness and redness play quite different roles in our ordinary conceptual framework, and that the logic of 'now' differs from the logic of 'red.'<sup>10</sup> The disanalogies, whatever they are, do not detract from the important but limited way in which nowness and

<sup>7</sup> The distinction between (i) and (ii) is similar to one made by J. L. Austin, who distinguished two opposite ways 'identify' is used. On the one hand, we may find an object which fills the bill as in (i), and on the other hand, we may find a cap which fits a given object as in (ii). "How to Talk," *Philosophical Papers* (Oxford: The Oxford University Press, 1961), p. 190. I am indebted to Professor Robert Schultz for this reference.

<sup>8</sup> For example, *The Language of Time*, p. 228, and "Grünbaum on Temporal Becoming: A Critique," p. 440.

<sup>9</sup> *Modern Science*, pp. 25-26. The analogy suggests but does not force the conclusion that nowness is a *nonsensory* property. Later, it will be argued that Grünbaum's thesis can be interpreted as either an "adverbial" or a "property" view of the mind-dependence of becoming.

<sup>10</sup> "Grünbaum on Temporal Becoming," p. 440, and *The Language of Time*, pp. 69-86.

redness is claimed to be analogous. The similarity is that the grounds for holding redness to be mind-dependent are analogous to those for holding *nowness* to be mind-dependent: Commonsense color attributes "surely appear to be properties of physical objects independently of our awareness of them and are held to be such by common sense. And yet scientific theory tells us that they are mind-dependent qualities, like sweet and sour are."<sup>11</sup> Thus the *source* of the mind-dependence of both lies in the fact that scientific theories fail to ascribe them to the physical universe.

Since Grünbaum does not discuss the analogy in detail, critics may lodge objections to the mind-dependence thesis on the assumption that *occurring now* and *being red* are mind-dependent in exactly the same way. To set the stage for a slight modification of Grünbaum's thesis, Salmon cites one such objection. On a sensation view of perception, we can understand how an object which has a particular configuration of parts can cause, under certain conditions, "a sensation that has the property of being blue, even though the object itself does not literally have the quality of blueness independent of observation."<sup>12</sup> But on Grünbaum's thesis, Salmon asks, what qualitative feature characterizes the sensation involved in the awareness of an event which qualifies it as occurring now?

The answer, it would seem, is that the sensation has the property of occurring in the psychological history of the observer, since every event that one is aware of as occurring is associated with some sensation or other. But every sensation the subject ever has belongs to his life history, and it is true *at all times* that the sensation is part of his life history . . . . Clearly, then, the property of occurring to the observer at some time in his life history . . . would *permanently* qualify every event of which the observer is ever aware as occurring now . . . .

In this objection, however, it has been overlooked that what qualifies an event as occurring now is not simply "the property of occurring to the observer at some time in his life history." For Grünbaum is careful to specify certain requirements of judgmental awareness which must be fulfilled for an event to qualify at *t* as occurring now. For example,

if I just hear a noise at a time *t*, then the noise does not qualify at *t* as *now* unless at *t* I am judgmentally aware of the fact of my hearing it at all and of the temporal coincidence of the hearing with that awareness. If the event at the time *t* is itself a mental event (e.g., a pain), then there is no

<sup>11</sup> *Modern Science*, p. 7.

<sup>12</sup> Wesley Salmon, "Memory and Perception in *Human Knowledge*," in *Bertrand Russell's Philosophy*, ed. George Naknikian (London: Gerald Duckworth and Company, 1974), p. 163. Salmon gives credit to Ferrel Christensen's doctoral dissertation at Indiana University, "A Defense of Temporal Becoming," 1971, for the argument that follows.

distinction between the event and our experience of it. With this understanding, I claim that the *nowness* at a time  $t$  of either a physical or a mental event requires that there be an *experience* of the event or of another event simultaneous with it which satisfies the specified requirements.<sup>13</sup>

On this view, merely having a sensation does not qualify any event as occurring now. What is required is judgmental awareness of the sensation; one must *know* that one has the sensation at that time. And for a given sensation, there is only one time at which a person can know that he is having that sensation; hence, there is only one time at which that sensation can qualify as occurring now. An advocate of Grünbaum's position can respond to the difficulty raised by Salmon as follows:

Let  $E_m$  be the sensation (mental event) involved in the awareness of some physical event. If  $M$  is judgmentally aware of  $E_m$  at  $t$  in the way Grünbaum requires, so that  $E_m$  at  $t$  occurs now, than as Salmon says, it is true at all times that at  $t$   $M$  is aware of  $E_m$  and it is true at all times that  $E_m$  qualifies at  $t$  as occurring now; but it clearly does not follow from this that  $E_m$  qualifies at all times as occurring now: it is only at  $t$  that  $M$  has the requisite awareness that qualifies  $E_m$  as occurring now. To put it another way: at  $t$ ,  $E_m$  qualifies as occurring now if at  $t$   $E_m$  is experienced as occurring now; at  $t$   $E_m$  is experienced as occurring now if at  $t$   $M$  is judgmentally aware of  $E_m$  and of the temporal coincidence of  $E_m$  with his awareness; at  $t$   $M$  is judgmentally aware of  $E_m$  and of the temporal coincidence of  $E_m$  with his awareness if at  $t$   $M$  knows that he is having that sensation. In each case, the 'at  $t$ ' serves to identify uniquely the time of the event which qualifies as occurring now. The fact that the conditions under which an event qualifies as occurring now are specified relative to a time prevents  $E_m$  from qualifying as occurring now at all times. Thus it is only at the time at which  $M$  is judgmentally aware of having the sensation that the sensation qualifies as occurring now, and Grünbaum does not seem susceptible to the charge that events permanently qualify as occurring now.

## II

Even if Grünbaum escapes the criticism above, perhaps a simpler condition for an event's occurring now could be substituted for Grünbaum's rather complex requirement of judgmental awareness. Consider, for example, the view of mind-dependent becoming offered by Salmon, who proposes an awareness require-

<sup>13</sup> "The Meaning of Time," pp. 207-208.

ment in terms of perception. As a modification of Grünbaum's thesis, Salmon holds that what qualifies an event as a past event is that it is experienced retrospectively, i.e., "it is experienced in such a way that there is a noticeable time lapse between the sensations and the memory-awareness." What qualifies an event as present is that it is experienced perceptually, i.e., there is no noticeable time lapse between the sensation and the awareness. And what qualifies an event as future is that it is experienced prospectively.

On this basis, we clearly see that past, present and future status of events is not determined by any simple characteristic of the sensations associated with it, but rather in terms of the process by which the sensations . . . are transformed into a *cognitive* awareness. The adverbial nature of the terms 'retrospectively', 'presently' and 'prospectively' should serve to remind us that it is the process that is being characterized.<sup>14</sup>

There are several points to notice about this account of becoming. First, in certain ways it is not much of a departure from Grünbaum's thesis; on Grünbaum's view, it is also the case that "past, present and future status of events is not determined by any simple characteristics of sensations associated with it," but rather by judgmental awareness; also "now" can be taken to characterize a process on Grünbaum's thesis without introducing Salmon's modification. On the other hand, there are problems involved in making past, present, and future all depend on different kinds of experience. Salmon's only example of experiencing an event prospectively is precognition, which he admits cannot occur if perception is regarded as a causal process.<sup>15</sup> Whatever else it may be to experience an event prospectively, e.g., to anticipate an event, it is not clear how it involves a "process by which sensations . . . are transformed into cognitive awareness." Moreover, Salmon's account is not sufficiently general: surely events, although unremembered by anyone, e.g., events which occurred during the formation of the earth, should qualify now in 1975 as being past; and unanticipated events that occur in 2001 should qualify at this writing as being future. All these difficulties are easily eliminated, however, by defining, as Grünbaum does, the past as those events earlier than now and the future as those events later than now. If we make this revision, what remains of Salmon's account is his claim that

the characteristic which the experience must have in order to qualify the event experienced as present is that the experience be a perceptual ex-

<sup>14</sup> "Memory and Perception in *Human Knowledge*," p. 165. Salmon believes that such modification is called for because of the argument, cited earlier, that each event picked out as occurring now at *t* qualifies permanently as occurring now on Grünbaum's criterion. It is not clear how Salmon's alternative would be any less susceptible to the same criticism, whose deficiencies have been pointed out.

<sup>15</sup> "Memory and Perception in *Human Knowledge*," p. 166.

perience—i.e., that the sensations occur and be transformed (by animal inference, etc.) into a perception without discernible delay.<sup>16</sup>

Salmon's account of the present was suggested by his discussion of perception, in which he characterized perception "as a way of experiencing events as present."<sup>17</sup> The same point can be rephrased, he notes, by saying that "to perceive an event is to experience it presently . . . ." Given this characterization of perception, it appears circular to characterize the presentness of an event only in terms of perception.

Even if the circularity were removed, perception of an event at  $t$  as a necessary and sufficient condition for that event to qualify at  $t$  as occurring now is unsatisfactory on other counts. The first difficulty stems from the fact that perception, as Salmon agrees with Russell, is taken to result from an inference (animal or otherwise) from sensation or an interpretation of sensation, and inferences from sensation to perception are fallible. The difficulty is this: if cases of nonveridical perception qualify events as occurring now, then the event that qualifies as occurring now in such cases must either be an event which fails to occur, thus showing the condition of perception to be too broad, or a sensation, contra Salmon's analysis; otherwise Salmon's account becomes indistinguishable from Grünbaum's. If Salmon restricts perception to veridical perception, events which should qualify as occurring now fail to so qualify, thus revealing the condition of perception to be too narrow. In detail:

On the one hand, Salmon may allow for faulty inferences from sensation and hold that whenever someone *took himself* to have a veridical perception, an event may qualify as occurring now. In cases of misperception, *what* event would so qualify? Say that someone took himself to have a veridical perception of an elephant's flicking his tail, but in fact the person was hallucinating. The event to which the person ascribes nowness, the flick of the tail, does not actually occur at all, and hence the temporal ascription is incorrect. The *ascription* of nowness on the basis of a (presumed veridical) perception cannot qualify a (presumed) physical event as occurring now; for if it could, nonexistent physical events, such as an hallucinated flick of an elephant's tail, would qualify as occurring now— in which case the condition of perception is too broad. The only plausible candidates for the event which qualifies as occurring now are mental events—either the sensation or the taking oneself to see a tail flick. In the former case, it would simply be false that the "characteristic that qualifies an event as present, if this is the case, is that it is experienced

<sup>16</sup> *Ibid.*, p. 165.

<sup>17</sup> *Ibid.*, p. 164.

perceptually";<sup>18</sup> for mental events such as sensations are not themselves experienced perceptually, but are the basis for perceptual experience. And if the event which is to qualify as occurring now is the mental event of taking oneself to see a tail flick, Salmon's account will collapse into Grünbaum's, whose view on this point will be examined momentarily.

On the other hand, if, for an event to qualify as occurring now at  $t$ , Salmon were to require that it be veridically perceived at  $t$ , then in the following example the physical event would fail at any  $t$  to qualify as occurring now: at 3:00 a.m. the person sweeping up the first floor of the Senate Office Building has an auditory sensation which, he infers, is the back-firing of a car; he is mistaken, however, since in fact there are no cars in the vicinity and the noise was caused by the explosion of a small time bomb. If veridical perception at  $t$  were required for an event at  $t$  to occur now, then the explosion would not so qualify at 3:00 a.m. since it is misperceived to be a backfire; in this case no event at 3:00 a.m. would qualify as occurring now, which suggests that the condition of veridical perception is too narrow. In correspondence, Salmon indicates that he does not intend to require veridicality; in that case, his requirement of perception at  $t$  for an event at  $t$  to qualify as occurring now seems no different from Grünbaum's requirement of judgmental awareness.

Grünbaum, and perhaps Salmon, can avoid the problem of veridicality in the following way:<sup>19</sup> the sweeper's hearing the noise qualifies at 3:00 as occurring now because at 3:00 he has a complex experience which includes both hearing the noise and being aware that he is hearing the noise at that time. The physical event, the explosion, qualifies derivatively as occurring now at 3:00 a.m. because it is (quasi) simultaneous with an event (i.e., the hearing of the noise) which qualifies as occurring now at 3:00 a.m. What Grünbaum requires for an experience to qualify at some  $t$  as occurring now is that the person be conceptually aware of the sensory content of his experience at that time; he does not require a correct identification of the cause of the experience. Since for Grünbaum, in the first instance it is the content rather than the cause of one's awareness that becomes present, if one is conceptually aware of hearing a noise at the time of hearing it, then it is irrelevant that he mistakes the noise to be a car's

<sup>18</sup> *Ibid.*, p. 165.

<sup>19</sup> Since at one point Grünbaum refers to the present as "an attribute of events which is encountered in *perceptual awareness*" (*Modern Science*, p. 7. Emphasis his.), he may want to restrict his account of the present to perception (of which one is judgmentally aware). If so, what follows may be taken to provide a way that the thesis can (and I think should) be extended to meet certain objections.

backfiring rather than an explosion. Indeed, even his *misidentification* serves to fulfill the requirement that he is judgmentally aware of hearing the noise.

There is another variety of perceptual error, which indicates a second way in which Grünbaum's requirement of judgmental awareness is superior to Salmon's requirement of perception. Consider cases in which a person (e.g., a senile person or someone who "relives" a traumatic experience) confuses a vivid memory with what is occurring in the present. Although Grünbaum's thesis does not attempt to offer a phenomenological account of the different temporal dimensions of experience, the condition of judgmental awareness for an event's becoming present does accomplish the following: It both insures that *what is remembered* does not qualify as occurring now at the time at which it is remembered, and it allows that an *event of remembering* can qualify as occurring now at the time at which it occurs. To illustrate: Say that a young girl is in a head-on automobile collision. Then as an adult, the woman continues to "re-live" the experience. It can be shown that, on Grünbaum's thesis, occasions of reliving the experience may qualify as occurring now in the life of the woman, but the accident itself could not qualify as occurring now after the victim is grown. The *seeing* of the oncoming car suddenly swerve into the wrong lane qualifies as occurring now at  $t$  if (but not only if) at  $t$  the child has a complex experience which includes being aware that she is having the experience of seeing at that time. The physical event of the swerving of the oncoming car occurs now at  $t$  derivatively by being quasisimultaneous with the child's seeing the car swerve. The event of the oncoming car's swerving could not qualify as occurring now after the child is an adult, because it is not quasisimultaneous with any judgmental awareness that occurs after the child grows up. Nor can the woman who relives the experience actually see the oncoming car; she can only "see" it, i.e., have an experience similar in content to seeing an actual automobile. Say that at  $t'$ , twenty years later than  $t$ , the woman has a complex experience which includes both "seeing" the oncoming car swerve and being aware that she is having that experience. If the woman is aware at  $t'$  that her "seeing" is an event of remembering a seeing, i.e., if her awareness includes the fact that she is reliving an experience, then her "seeing" clearly qualifies at  $t'$  as occurring now; in a straightforward way the event of remembering (or imagining) becomes present at some time if it meets the awareness requirements at that time. If, on the other hand, the woman at  $t'$  takes her "seeing" to be an actual seeing, i.e., if her awareness does not include the fact that she is reliv-

ing the experience, the "seeing" may still qualify as occurring now; for she may have a complex experience at  $t'$  which includes both "seeing" the car swerve and being aware that she is having that experience at that time.<sup>20</sup> The fact that she mistakes her "seeing" for an actual seeing does not alter the fact that she may be judgmentally aware that she is having a certain experience at the time that she has it; if so, her awareness qualifies at that time as occurring now, even though she makes a temporal misidentification. To take a memory to be a perception is to confuse the following: the case in which one's conceptual awareness of a sentient awareness is later than the (original) awareness with the case in which one's conceptual awareness of a sentient awareness is simultaneous with the (original) awareness. The requirement of conceptual or judgmental awareness, i.e., awareness of an awareness, for an event to occur now allows the appropriate distinctions to be made between memory and perception.

On Salmon's view, on the other hand, recall that "the characteristic which the experience must have in order to qualify the event experienced as present is that the experience be a perceptual experience." Since it is not clear in what way an event of remembering could be said to be a perceptual experience, it seems that on Salmon's account an event of remembering could never qualify as occurring now—even when one is aware that his present experience is a memory of a past event.

Surely we want certain events of remembering to qualify as occurring now; events which occur now in awareness do not seem to be confined to events of perception. Certain rememberings and imaginings as well as perceivings and misperceivings seem to be among those events of awareness which become present: When one sets about imagining something on instructions to "imagine that . . .," one's imagining, of which one may be judgmentally aware, may become present in a way analogous to the way in which one's perceivings become present. (Remembering on instructions to "remember when . . ." is a similar case.) Thus, it seems that some rememberings and some imaginings ought to qualify as occurring now, contrary to Salmon's view, so Grünbaum's version, which allows that some imaginings and rememberings become present is more in accord with our experience of events as occurring now or becoming present.

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<sup>20</sup> The mind-dependence thesis is indifferent to the problem of the existence of images, whether or not "seeing" the car swerve involves an image is irrelevant to the question of whether or not one's experience, which one may mistake to be an actual seeing of a car swerve, occurs now.

III

It may be argued that the condition of judgmental awareness is incompatible with the standard truth-conditions for 'E is occurring now': 'E is occurring now' (said at  $t$ ) is true if and only if E occurs at  $t$ . Consider: A tape recorder is hooked up to an elevator's doors in such a way that each time the doors close, the recorder plays, "The elevator doors are closing now."<sup>21</sup> Say that everyone is killed in a worldwide disaster, so that there is no more judgmental awareness at all, but that the recorder and elevator continue to function without a hitch. There is no judgmental awareness accompanying 'The elevator doors are closing now'; must the mind-dependence theorist admit that the closing of the doors occurs now at any time? Since the elevator doors do close at  $t$ , 'The elevator doors are closing now' (said at  $t$ ) is true. Thus, the mind-dependence theorist seems to be in a dilemma: either he must concede that an event may become present at  $t$  even if there is no judgmental awareness at  $t$ , or he must amend the truth-conditions for sentences like 'The elevator doors are closing now' by adding reference to judgmental awareness.

However, the mind-dependence theorist may avoid both horns of the dilemma. Since the tape recorder cannot make a judgment or mean anything by the string of noises, it makes no assertion whatever. The truth-conditions for 'The elevator doors are closing now' can simply be construed counterfactually: If 'The elevator doors are closing now' were said meaningfully at  $t$ , it would be true. But then, if 'The elevator doors are closing now' were *said meaningfully* at  $t$ , i.e., if it expressed a judgment, then Grünbaum's requirement of judgmental awareness would thereby be fulfilled, and the closing of the elevator doors would qualify at  $t$  as occurring now.

The critic of the mind-dependence thesis may grant the general contention that if there were no minds and hence no language, there would be no statements at all. However, he might hold a different view of language, so that he would not be satisfied with a reply which rests on the claim that a necessary condition for a string of noises to be true or false at any  $t$  is that the noises actually express someone's judgment at  $t$ . There are at least some cases in which it is plausible to hold that a string of noises makes a true statement even when there is no corresponding judgment, although such cases may derive from paradigm cases of statements which do express judgments. Say that every hour a tape recorder automatically announces the time, e.g., "It is now 6:00." Granting that the general notions of statement and truth-condition presuppose that there are minds, it may be urged

<sup>21</sup> Professor Allan Gibbard suggested this example.

that on any particular occasion, 'It is now 6:00' may be true or false independently of whether or not it expresses anyone's judgment at that time. But if it is allowed that there can be a true statement without a corresponding judgment, then given the existence of the English language, 'The elevator doors are closing now' (said at  $t$ ) may be true or false regardless of whether or not it expresses anyone's judgment at  $t$ . And the dilemma reappears for the mind-dependence theorist.

Nevertheless, the mind-dependence theorist can concede that the closing of the elevator doors occurs now at  $t$  without giving up the thrust of the mind-dependence thesis. He can relax the condition of judgmental awareness, without abandoning it, in the following way: instead of requiring in each case of a physical event's occurring now that there be an actual awareness quasisimultaneous with the occurrence of the event, let us allow that the required judgmental awareness be actual or hypothetical. Let us understand *occurring now* in terms of what would be experienced by an observer who met the awareness requirements. With this extension, any event may *become present* at the time of its occurrence, but in the analysis of *becoming present* we make reference to judgmental awareness.<sup>22</sup>

On both Grünbaum's view and the extension of it, *occurring now* can naturally be understood to be understood as a directly experienced property of certain mental events. Thus we must consider an argument that the result of taking nowness to be a property of mental events is an extravagant proliferation of properties. If *occurring now* is an irreducible mind-dependent property, then 'E is occurring now' predicates a (mind-dependent) property of E. Paul Fitzgerald has argued that if nowness is taken to be a mind-independent irreducible temporal indexical property, there results an unacceptable prolifera-

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<sup>22</sup> This version of the mind-dependence, which allows that every event occurs now (when it occurs) removes a slightly counterintuitive feature of Grünbaum's original mind-dependence thesis: on both the original and revised theses, past events are defined as those which are earlier than now. Some of the events which occurred earlier than now (as this is being written) occurred during the Ice Age. But since there was no judgmental awareness at the times when those events occurred, there never was a time at which they occurred now; so, there are events which are past, which have never been present on Grünbaum's version. Although I do not think that this consequence is detrimental to the original thesis, it is slightly odd, and its removal by appeal to hypothetical judgmental awareness is not unwelcome.

tion of properties.<sup>23</sup> His argument can be applied to those who take nowness as a mind-dependent irreducible property as well. A temporal indexical property—nowness, pastness, futurity—is one that can be truly predicated of events at some times but not at all times. Fitzgerald points out that one might posit temporal indexical properties on the following grounds: since 'E is occurring now' and any nonindexical counterpart such as 'E occurs (tenselessly) at *t*' have different truth- and knowledge-conditions, they convey different information. Hence, it is reasonable to claim that they do not predicate the same property of E, and that indexical properties are needed to account for what 'is occurring now' predicates of E. In this way, one might embrace the principle that if two fact-stating statements differ in truth- and knowledge-conditions (in a relevant way), then they predicate different properties. But on this principle, Fitzgerald argues, every token of 'is occurring now' predicates a different property.<sup>24</sup>

There are several difficulties with this argument: The principle on which it depends is not directly applicable to 'E is occurring now'; for there are neither truth- nor knowledge-conditions for 'E is occurring now' in the absence of specification of the time of utterance. With the needed time specification, however, the truth-conditions are the same for every token of 'E of occurring now': For any *t*, 'E is occurring now' said at *t* is true if and only if E occurs at *t*. (Moreover, since the truth-conditions for 'E occurs at *t*' are the same as those for 'E is occurring now' (said at *t*), it is not obvious how the principle cited by Fitzgerald supports the positing of temporal indexical properties in the first place.) In any case, there is no relevant difference in truth-conditions of different tokens of 'E is occurring now' which would lead to a proliferation of properties.

<sup>23</sup> Paul Fitzgerald, "Nowness and the Understanding of Time," *PSA 1972*, eds. Kenneth F. Schaffner and Robert S. Cohen (Dordrecht-Holland: D. Reidel Publishing Company, 1974), pp. 272-274. Although he accuses Grünbaum of being unclear about what view of temporal becoming Grünbaum is opposing, Fitzgerald himself conflates issues in his fourth sense of temporal becoming, the sense most like the one Grünbaum argues against, which he calls the property-acquisition model: "The question at issue is whether indexical predicates of a temporal kind predicate irreducibly indexical properties of their subjects, and whether these properties are mind-independent features of the physical world." ("Nowness," p. 262) But these are clearly distinct questions, which Fitzgerald does not ever handle separately. Grünbaum holds that there are irreducibly indexical properties, but that these are not mind-independent features of the physical world.

<sup>24</sup> "Nowness," p. 272. Although Fitzgerald suggests 'Event E occurs (tenselessly) sometime' as a nonindexical counterpart of 'Event E is occurring now,' I am taking 'Event E occurs at *t*' as the more appropriate counterpart.

Without reference to truth-conditions, the principle becomes simply false; for a difference in knowledge-conditions alone cannot sustain a claim that different statements or tokens predicate different properties. As Fitzgerald puts it, two fact-stating statements differ in knowledge-conditions if it is possible for a person "who knows the meanings of both and the truth-value of the second to lack sufficient information to figure out the truth-value of the first."<sup>25</sup> In this case, 'Samuel Clemens wrote *Tom Sawyer*' and 'Mark Twain wrote *Tom Sawyer*' differ in knowledge-conditions; but the statements do not predicate two distinct properties. Fitzgerald has further arguments to show that taking nowness to be a property issues in proliferation, but each of his arguments depends upon the view that where statements differ in knowledge-conditions, they predicate different properties. Thus, a defender of the view that *occurring now* is a property (mind-dependent or mind-independent) need not be saddled with an extravagant proliferation of properties.

A better reason for claiming, as Grünbaum does, that 'E is occurring now' (said at *t*) and 'E occurs at *t*' predicate different properties is that the *becoming present* of an event, unlike its occurrence at a clock time, is not a physical property. But failing to be a mind-independent property of events, nowness can adequately be construed as a mind-dependent property. The reason to take nowness to be a mind-dependent attribute of events is that transiency plays an undeniably significant role in our experience. Thus on the one hand, in order to "save the phenomena," an account of becoming should allow for the ongoing and transient quality of experience; and on the other hand, an account of becoming should not assign a physical status to nowness in the scientific image. The only kind of account which satisfies both of these conditions will be some version of the mind-dependence thesis.

Salmon proposed his version of the mind-dependence thesis as an adverbial view, which takes *occurring now* to be an adverbial attribute rather than a property of mental events. According to such an adverbial understanding, the primary sense in which becoming figures in our awareness is that "now" is a mode or manner of experiencing: we are aware of events *as present* or *as occurring now* when we have the requisite awareness. Grünbaum's view can easily be accommodated to either an adverbial or a property view; this is so because the difference between the two ways of construing mind-dependent becoming is largely verbal. On an adverbial view, what is

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<sup>25</sup> "Nowness," p. 272.

saved in properties of mental events is paid for in terms of adverbial attributes. And since taking nowness to be a mind-dependent property does not issue in any proliferation of properties, Grünbaum's thesis can be considered as neutral between a property view and an adverbial view of becoming.

IV

Of all the attention directed toward the status of temporal becoming, there has been relatively little aimed at a clarification of the mind-dependence thesis itself. Using Grünbaum's version of the mind-dependence thesis, I have tried to begin to remedy that situation by specifying ways in which *occurring now* is mind-dependent; by arguing that an account of mind-dependence in terms of judgmental awareness (perhaps an extension of Grünbaum's view) is superior to an account in terms of perception; by showing how (with a modification) the mind-dependence thesis can meet a challenge from a putative counterexample; finally, by suggesting that, without proliferating properties, "now" can be interpreted on the mind-dependence thesis either as an adverbial attribute or as a directly experienced property of certain mental events.

LYNNE RUDDER BAKER.

UNIVERSITY OF PITTSBURGH AND MARY BALDWIN COLLEGE.