

TEMPORAL FORM AND EXISTENCE

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THE PROBLEM OF TIME, like other philosophical problems, is a focus of many questions. The answer given to any one question presupposes an examination of other questions. The philosopher is embarrassed by the necessity of clarifying some prior concept before he settles down to a consideration of any one concept. Before you can enjoy after-dinner coffee, you must have dessert; you cannot have dessert until you have eaten the roast; and so on back to the salad and soup. But we are threatened with philosophical starvation just because we cannot really enjoy our philosophical soup or salad until we have had our philosophical dessert, and *vice versa*. Instead, we are compelled to take one thing at a time, dispose of it, and go on to the next. We meet the problem of Time the moment we cross the threshold of philosophical reflection. The serial order of before and after, of change, succession, and supersession, means one thing or event at a time, its recession and replacement by a successor. It is done with and disposed of; to it we can never go back. But the order and structure with which reflection has to do would appear to posit and demand not only something different from this, but quite the contrary. It is circular and not serial. Every starting place is tentative and hypothetical, subject to revision and reinterpretation. Its context is massive, multidimensional, fluid in all directions. The arrow of reflective thought, unlike time's arrow, is not set on a single unvarying course. It is not surprising that all but a very few of the first-rate philosophers should have concluded that the temporal order of before and after, universal though it be, is not the last word about our experience.

All the speakers who have preceded me are in agreement upon one point, namely, that what time denotes is not any entity which either does or could exist by itself. There is no time *per se*, no

empty time, logically or existentially prior to and independent of things and events which are said to exist in time. Time is not substantival, but adjectival or relational. I am not sure that any philosophers, other than certain natural philosophers such as Newton, have ever really thought otherwise. Because they talk about the noun "time," it does not follow that they take time to be a substantive kind of thing which might exist by itself. Time denotes some discriminable aspect or ingredient of things and events, and one is absolved from remarking upon this when using the term.

Why do we so easily fall into the habit of thinking and speaking of an empty or pure time, a dimension infinitely extended in two opposite directions within which things and events, including ourselves, exist and occur? Why do we hypostatize Time, and confer upon it an independent, substantive status? There is, I think, something more in evidence here than our general human propensity to hypostatize abstractions. Color is a quality which belongs to every perceived object; it is adjectival and pervasive; yet we are not tempted to erect a world of empty color in which colored things exist. We do just this for space. Persistence and change are experienced temporal qualities equally adjectival and pervasive. But instead of erecting persistence and change into substantive existences, we think of an empty time in which things persist and changes go on. Why do we translate the temporal quality of things in this manner? I think that we do this because the temporal quality of things is not just a simple quality, as hardness and color are qualities of my table. Change and persistence are indeed qualities of things and events. But they are relational qualities, that is, qualities which exhibit a pattern, a relational structure, a form or schema. The relation of succession, of before and after, is displayed within every so-called temporal quality. A schematic relational structure is intrinsic to temporal quality. This renders temporal quality different from the ordinary run of experienced qualities. The redness of the rose, the pain of a toothache, are no doubt dependent upon the relations in which the rose and the tooth stand to sense organs, nervous system, and various physical processes. In this sense these experienced qualities are relational. But these relations are, so to speak, extrinsic to the felt qualities. Within, these qualities are dense and opaque. They exhibit little

or no wealth of internal relational structure. Series, intervals, and types of order, providing a field for geometry and analysis, are here in abeyance. They just are what they are, felt, intuited essences or qualities, whose intrinsic nature is exhausted in the immediate experience of them. I do not think that this is quite the last work about them, but it will serve to mark the great difference between all such qualities and temporal quality. Temporal quality is not internally opaque and merely qualitative. It provides an inexhaustible and fertile domain for analysis which felt colors and toothaches do not. It is because of this difference that we find it not only easy but seemingly inevitable to endow Time with an independent and intrinsic nature. The relational quality pertaining to felt temporal quality cannot be confined to the situation which presents us that quality, in the way in which we do think of the redness as being in the rose and the ache as being in the tooth. For, whenever we discern a pattern, a formal relational structure within a mass of presented data, we have something which can be set free from its present locus and embodiment. It can now be thought of as applicable to other instances, as characterizing areas of existence beyond the boundaries of presented fact. There are features of presented situations which are given and discerned as universals in a quite literal sense, that is, as having a more general scope and applicability than merely to the particular instance in which they are here and now presented. This holds of qualities as well as of relational structures. The minimum of any presented datum is always a this-such, where the quality, the suchness, contains the possibility of further, indefinitely extended application. But in relational qualities this feature is fraught with a peculiar significance. Where a pattern or structure, characterized by a defining relation, is discerned within given experience, its extension beyond the given becomes even more clearly indicated. Its wider applicability is an intrinsic meaning of the pattern itself.

It is as if we were presented with a small stretch of real numbers, say those between 5 and 8, and that we discerned the formal structure exhibited within this presented stretch. The relational schema thus presented would be discriminated from a particular entity falling within the presented stretch, such as the number 6.

This discrimination of a relational structure from its content or matter is at the same time an indefinite extension of the schema beyond the boundaries of the presented situation. We think of the formal schema as applicable to what is not here and now presented. An architect's plan for a house could be used for building many houses in different places. The plan is adjectival. It is the plan of some house, actual or possible. The reification and hypostatizing of Time expresses, no doubt crudely and mistakenly, the discovery within felt temporal quality of a relational structure, internally inexhaustible and externally extended and indefinitely extensible.

I shall take time to be then a feature, adjective, or quality of things experienced. I take the temporal quality to be utterly pervasive and universal. It has no merely restricted exemplification like the qualities "sweet" and "hard." Can we describe this universal temporal quality of things experienced in terms of a single relational quality, a single type of pattern, or is it complex, containing two or more different structures? I shall hold that *the* temporal quality is the relational quality of earlier and later, of before and after, of succession. The defining characteristic of time is successiveness. This statement requires me to consider certain views according to which there is a temporal quality independent of succession. I begin by asking whether we have any experience of temporal quality which does not exhibit succession. Can we ascribe any meaning to temporal existence which is not characterized by the serial order of before and after? I do not think that we can. However, there are those who appear to think otherwise. Mr. Mackay apparently wishes to distinguish quite sharply between duration and succession. I understand him to say that in the direct experience of something going on, of continuous qualitative change, we have duration but not succession. Succession means a series. Duration is not a series of events. Moreover, we are told that past, present, and future do not constitute a series, that a past event can be specified as past without reference to the temporal relation of earlier and later. The order of duration runs from future possibilities through the present and enduring into the past. What Mr. Mackay speaks of as duration appears to be what Mr. Loewenberg called "persistence." Reality means dura-

tion and persistence; these specify the real, nonspecious, non-successive present.

Now this distinction between duration and succession is, I agree, significant and fundamental. It constitutes the crux of the problem of time. But we may take the distinction in two ways. Either we have an experience of duration from which there is lacking any before-and-after serial order of successiveness, or our experience of duration is one in which there *is* succession, with its order of earlier and later, plus something else. If it should be the latter that we have, the temporal relation of before and after would be one aspect of duration, persistence, and the present, but it would not exhaust either what we experience or what we mean by duration and persistence. It would be the pervasive abstract temporal form of whatever perdures and persists. And it seems to me to be *the* temporal aspect of experience, *par excellence*. What a duration or a persistence might be in which there simply is no serial order of succession, I can neither imagine nor conceive. If anything persists or perdures, then the temporal pattern of earlier and later does characterize the enduring somewhat, whether I reflectively discriminate it or not. Of course, the present may be enjoyed without analyzing out its temporal schema, the before and after succession of its enjoyed contents. When I listen to music, I do not keep saying to myself that the melody I am hearing exhibits the temporal pattern of before and after. But when I do reflectively consider what I am hearing, and thus perhaps spoil the enjoyment, I immediately find just this temporal pattern of earlier and later. Duration is more than succession, but it is always at least succession.

If we take the temporal pattern of succession as pervasive, if duration and persistence are also successive, whatever more they may turn out to be, then it follows that we cannot hope to escape the metaphysical problems set by the relation of before and after through the discovery of a temporal quality in which succession is lacking. The analysis of the temporal pattern of before and after, of succession, provides a crucial test of philosophical method. In the problem of time are focused all the perplexities and paradoxes of the given, the presented, and the present, of transcendent reference, of experience and meaning. Let us begin with the inno-

cent attempt to analyze the meaning of any concept or term. We employ a great variety of terms signifying the temporal quality of things. How can we tell whether a term stands for anything and, if so, what it is to which the term points? Every term can be defined by means of other terms, and dictionaries exist in order to display this reference and cross-reference among words. But if terms are ever to denote things which are other than words, this area of terms in discourse must be broken into and invaded. The term must initiate a process which leads away from discourse into things. What thing can a word stand for? Obviously, it must be some thing which is presented to us or had by us independently of being named. It must be experienced before it is named and in order to be named. Otherwise the name would be a conventional symbol or synonym of some other name. Of course, what *de facto* name shall be employed to denote anything is an arbitrary affair. Any other name might have become attached to the thing. But once attached, that name has a meaning; it denotes a thing in some manner presented before it is named. What else can naming, thinking, and reflecting do except to indicate some experienced state of affairs or some trait which, on the basis of experience, may be inferred? Is there any theory of meaning other than an empirical or operational one which can possibly make sense? How can you ever know what you are talking about unless it is first presented to you in actual experience? The critic of empiricism seems to be caught in an impossible situation. He professes to know something about an existence which is never presented in any experience. He seems to be talking about things to which he cannot refer and say, "There they are." If they are *there*, they belong to experience; if they are not *there*, whatever is said about them will be, not false, but meaningless. For the empirical positivist is in the fortunate position of never having to refute as false any philosophical or metaphysical proposition. He has only to say that it is meaningless because it refers to something not experienced. If it had entered into experience, it would become legitimate subject-matter, not for philosophy, but for some empirical science.

Let us see where we get, with respect to time, when we proceed on this basis. It is really quite simple. Whatever is experienced is presented. Whatever is presented is, of course, present. What is

present is neither past nor future. There is nothing but the present. Pastness and futurity denote aspects or phases of the presented, the present. What the presented present internally contains, whether it yields an experience or intuition of temporal diversity, of actual change, of a real before and after—all these are further questions which may be postponed. Did I say “postponed”? How stupid of me. For when I postpone anything, I shove it off into the future. But when I shove anything over the front boundary of the presented present, there just now is nowhere for it to go. When I postpone anything, it crashes over the precipice of existence and is annihilated. When I gently close the door of my house upon an unwelcome intruder I assume that there is real empty space in the porch beyond, eager to receive him undamaged and whole. I know of course that even an empiricist may sometimes wish to postpone something and may remind me that the entire act of postponement must take place in the presented present, and that it means the presence of ideas, leadings, and tendencies presently existent and active. If postponement has any meaning, it can only indicate something presented in experience. Past and future are either presented in experience or they are not. If they are not presented, we can neither know nor say anything about them. If they are presented, they are present and not past or future. But, I shall be told, this is a caricature of empiricism. No empiricist has ever dreamed of confining his world to the boundaries of what is actually presented. He makes inferences, he constructs tentatively and hypothetically, he projects beyond and fills in the gaps between the fragmentary bits of presented experience. On this basis and in this way he has as good a right as anyone to talk about a past and future which are not present and presented.

What is the status of such projections and constructions? From the standpoint of any present, the awareness of past and future does involve some kind of ideal construction. Now, on the one hand, such ideal construction with all of its works falls entirely within the present. The present supports the whole weight of the construction, in the shape, say, of memory or anticipation. The bridge which is thrown out to past and future has but a single pier in the present. The present, in its passage and forward movement, carries with it all the past and future. Change in the present,

which is all there is, means a change of the past. This is the view of Mead. There is behind the present no scroll of elapsed presents. Past and future have their locus in mind. Or, on the other hand, recognizing the part played by ideal constructions in the present, we shall say that they are the vehicles through which we apprehend a nonpresented but real past and future. The bridge which we construct from the present will be supported by two piers, one at each end. But the other pier falls outside the boundaries of the presented, and it seems that we would require an extraordinary kind of vehicle thus to transport us beyond the boundaries of the presented and the present. In ideal construction, we have at our disposal the resources of the present, and it becomes necessary to scrutinize them with some care.

What is the present? From any point of view which is wholly and literally encased within any present, there would be no present as a stretch of time which lies between past and future. Any present of experience viewed from within, that is, from its own point of view, is a specious present. It is specious in a different sense from that in which the term is generally used. The specious present, as employed by James, was specious because it spread over more than a momentary instant. A succession of *nows*, of which the earlier must have disappeared before the later arrive, is perceived simultaneously in the specious present of James. I shall deal with this specious present presently—that is, in some present different from this present. I am saying now that any present is a specious present unless it belongs to a temporal series which includes past and future. Any present taken by itself is a specious present. It is a real present only when it is viewed as falling between a real past and a real future. But to obtain any perspective of such a real series comprising past and future as well as present you would, apparently, have to occupy a position outside of the present. The present thus appears to be doubly specious. Within the present, you have to get your first whiff of the before and after relation, of temporal form. To do this, you must have a simultaneous awareness of succession. This present is specious in contrast with a real present, which is a durationless, momentary instant. The present is specious in a second sense because everything that can be presented must fall within the pres-

ent. The present is now specious in contrast with a real present which is viewed as occupying a position between past and future. But to survey such a present requires a point of view which transcends the present. By what right could you locate the presented in the present unless you stood outside the present and were aware of a temporal series which includes more than the present?

Wholly from within any enjoyed present, that present has no external temporal boundaries. It has no locus in time. It is dateless and tenseless. It is no present in contrast with either past or future. I am but repeating here what Santayana has so clearly seen and said. The fact of experience, from its own point of view, is groundless. Viewed wholly from within, it has no successor nor is it the inheritor of anything which has gone before. It just is, and this "is" has no tense. Santayana's further contention that nothing vouched for in actual experience can provide access to existence, temporal or otherwise, is another matter.

The situation and problem here confronting us are but one instance of the whole affair of transcendent reference, of the relation between the given and what lies beyond the given, of immediacy and meaning. The present alone is given, presented, but we could not know it as present except by reference to its position within a wider series including past and future, which are not given. Were they given, they would be present. To view the present as occupying a temporal position is already to have transcended the present. The view requires a perspective wider than any which is accessible within the boundaries of presented and present.

The solipsism of the temporal specious present is in the same boat as any form of subjectivism and solipsism. Why is it ever alleged that presented data are subjective, that they fall inside an area bounded by the limits of immediacy, so that a subsequent process of precarious inference or irrational animal faith is required to provide access to what really exists? Any subjectivist interpretation of sense data is, as Kemp Smith has said, the result of the belief that sensations are mechanically generated through brain processes. What I directly perceive is said to be mental or subjective only because an outlying field of physical objects, including my body and brain, are first realistically assumed as the causes that bring about the existence of my sensations. But then

one turns around and says that these causes, since they are not directly experienced, must be inferred or posited upon the basis of their directly experienced effects. Unless they were first apprehended as the external and objective causes of sense data, there would be no point in supposing these latter to be merely private or subjective. The belief in their independent and objective existence cannot be entirely an affair of inference from the given if that is taken to be confined to the immediate, subjective, and present.

The relation between present and past, as well as between present and future, is analogous to the relation between presented sense data and physical objects. Neither physical objects, nor past nor future, can be said to be known through inference from present or presented experience. There would be no occasion for making the inference, let alone justifying it, unless one first had an awareness of the past or of a physical world by reference to which the presented is declared to be subjective and not objective, present and neither past nor future. Unless one has from the very start an awareness of a field which transcends the present, there would be no ground for the assertion that one's immediate experience occupies a temporal present. This is the elementary and inescapable paradox of all our knowing. Ever since it found its first expression in Plato's doctrine of *Anamnesis* it has dogged the footsteps of philosophical reflection, and demanded that we settle our accounts with it as best we may. If by empiricism one means only that, since to recognize the present one must be outside the present, a field transcending the present must be presentable and therefore, after all, in some fashion presented, then of course the limits of empiricism are *ipso facto* the limits of all science and philosophy, and Plato and Spinoza are as empirical as Locke and Hume. This is surely wrong. Empiricism, if it is to mean anything definite at all, denotes an attempt to stay within the presented, to regard anything not presented either as an inference from or a projection of the presented, or posited by the exigencies of life and practice with which the criteria of knowledge are simply not concerned.

Thus, a present which stands by itself, into which something called past or future is absorbed, or which is thought to provide the sole basis from which past and future may be inferred, is a specious present. In contrast with such a specious present, a real

present would be viewed as part of a temporal series which includes more than the temporal present. Were there no awareness of such a more inclusive temporal span, all that could possibly be said would be that such and such items are presented, are being experienced, without in any way implying the present tense. If what is presented is apprehended as belonging to or occurring at a present time, it is because we are aware of something more than just the presented. What is that more than the presented which leads us to locate the presented in a limited region of a temporal series and call it a temporal present? It can only be, I think, a schema or relational structure, a type of order whose defining principle is just the relation of before and after. We apply this schema to the whole of what is presented. It then becomes known as something lodged between that which came before and that which is to come after. We apply a temporal form to the totality of what is presented. The temporal pattern is simply the transitive, asymmetrical relation of before and after. It is through the employment of this pattern that the presented—which, as such, is tenseless—is transformed into the temporal present. For this reason I think that the relation of before and after is, logically, more fundamental than the relation of past, present, and future. McTaggart's *B* series is logically prior to the *A* series. The *A* series is the result of applying the pattern supplied by the *B* series to any mass of presented experience. As we have seen, it is this which enables us to understand why we so readily think of time *per se*, of empty time, of Time with a capital T. For what is this save the bare schema of before and after? And how much do we not owe to our human interest in forms and patterns abstracted from their particular exemplifications and instances? Of course they are abstract and empty, but they are none the less fruitful. That the discernment in experience and nature of such abstractable universals is the sole basis for our knowledge of the possible, was the theme of my paper a year ago. I there held that knowledge of the really possible is the application beyond the actual of patterns and schemata, types and universals, discerned within the actual. I am now saying that our knowledge of the actually presented as a temporal present is likewise the application to the whole of the presented of a temporal form.

The temporal schema of before and after, when applied to the actually presented, discloses it as contained within a structure which transcends the actual. It discloses the presented as lying between a real past and a real future. Neither the past nor the future are actual in the sense in which the present is actual. The actual is what is being enacted. What has been and what will be enacted are not actual. But it does not follow that they are nothing real or that they are only shadows cast by the actual. This distinction between the actual and the real seems to me both inescapable and fundamental. The actual is that fragment of the real which is presented. In undergoing the conditions necessary for its presentation in experience, the real may be altered, simplified, and pared down to the scale and perspectives imposed by the exigencies of animal life. To whatever degree we may suppose this to occur, the actual is apprehended within a real context which transcends the boundaries of what is literally experienced and presented. Our awareness of that wider context is neither a literal transcript of what is actually experienced nor a sheer inference from the stuff of presented experience. Knowledge is from the very start more inclusive than literal experience of the actual and the presented. There is no better instance of this than time itself. The only time that is actual is present time. In apprehending it as present we also apprehend a nonpresented, nonactual, but real past and future. In short, our awareness of a time order transcends our enjoyment of all that is presented in actual experience. We apprehend the presented as a temporal present between a real past and a real future because we apply to the presented as a whole the relational pattern of successiveness, of before and after. It is through the employment of such relational patterns that the actual is taken as a phase, moment, or fragment of structures which transcend the actual. If the presented were merely enjoyed for what it is, as presented and given, the real would collapse into the actual, the boundaries of our world would coincide with the boundaries of the presented. Or rather, it would never occur to us to draw any distinction between our world and the world.

But what of the temporal form itself, the relational pattern of before and after? How do we come by this so as to apply it to the presented and thus transform the presented actual into a tempo-

ral present? Do we or do we not actually experience temporal succession, the relation of before and after? That we have and employ the idea of temporal order is indubitable. We use it, as we have seen, to transcend the eternal now of the presented and to convert it into a temporal present. But the results of this transformation appear to be utterly paradoxical. On the one hand, the presented actual becomes extended backwards and forwards into a real past and future. The actual is set in a wider context of the real which both transcends the actual and is continuous with it. But the time form, the relational pattern of before and after, is not only applied, in wholesale fashion, to the whole of the presented. It is also employed as an instrument in the internal analysis of the presented. Within the presented, earlier and later are discriminated. In any presented duration, change, or persistence, the distinction of before and after breaks out. No matter how short the presented span may be supposed to be, within that span there is a before and after. And what came before, the earlier, must have gone by the time the later comes upon the scene. No before and after can coexist. Existence or the actual collapses into an instantaneous durationless moment. Thus, at the same time that the presented actual is expanded into the time order inclusive of indefinitely more than the present, it is also contracted into the momentary, the durationless, the instantaneous. The application of the temporal schema of before and after to the presented has these two divergent and contradictory results. It opens the windows of the present upon the wide expanse of past and future. It also appears to shave off the edges of the presented until all temporal quality and expanse disappear. We had hoped that the temporal pattern, as something universal and formal, might provide the means of transcending the actual. It now threatens to destroy the very actuality of the presented, and to pulverize the actual present into a changeless, momentary instant. Here is a form, a categorial relation, originating in experience and then employed to condemn as specious the very experience which engenders it. I suspect that we have here stumbled upon a significant and pervasive aspect of experience, paradoxical though it be. For whence can any ideal, any thought of a possible better, arise if not from the presented features of experienced and actual situations? But

when formulated and made articulate, the ideal condemns the actual as not being what it ought to be or might be. The processes of life and experience engender forms and ideal structures which in their turn take the lead and assume mastery. They now expand and transform, even condemn and destroy the very processes in which they have arisen.

It is, then, to a present said to be specious and unreal that we are now brought. The concept of the specious present was domesticated, though not invented, by James, in the interests of psychological description. It was designed to express the fact that, in James's words, "our consciousness never shrinks to the dimensions of a glow-worm spark. The knowledge of some other part of the stream, past or future, near or remote, is always mixed in with our knowledge of the present thing."* The minimum of consciousness is a duration block. We have a direct awareness of succession, duration, and persistence. What has just gone and is now slipping away is simultaneously perceived with that which is coming in. The difficulties and contradictions which inhere in such a "specious" present are notorious. They were dealt with at length by Mr. Loewenberg and Mr. Mackay, and prompted the former to seek for a real and nonspecious present. He believed that he was on the track of the nonspecious present in the recognition of persistence and persisting things. Here is a present which is restricted neither to a durationless instant, nor to any span of successive moments which appear to be perceived simultaneously. I, too, should like to discover a nonspecious present, but I do not feel so confident that the notion of persistence offers us our best hope; for I suspect that the contradictions disclosed within the psychological specious present threaten to break out within persistence. These contradictions, or alleged contradictions, are present wherever you have the temporal form of before and after, earlier and later. But this temporal pattern is universal and pervasive. It invades duration, persistence, the present itself. The crucial urgency of this temporal relation of before and after lies in its bearing upon the question of existence and reality. Time means that anything existing, existing now, has followed upon something else which did exist but no longer exists, and comes before another something

* James, *Psychology*, I:606.

which may or will exist but does not now possess existence. It is this temporal pattern of succession which apparently compels us to say that change and succession as experienced are specious. It also drives us to say that the real itself cannot change, cannot even endure and persist as something unchanging. The defects of the specious present are not only epistemic, involved in any awareness of temporal flux; they are also constitutive of any objective duration or persistence, characterized by the relation of before and after. For what condemns the perception of duration to be specious is the fact that any duration, however short, consists of a plurality of positions defined by the relation of earlier and later. The supposed contradiction inherent in a simultaneous perception of successive moments but translates into the language of psychology the impossibility of the coexistence of any successive moments. Of two successive moments, t and t' —related, that is, as before and after—when t exists, t' does not yet exist. And when t' exists, t no longer exists. If you are looking for existence exempt from this discrepancy, you cannot stop short of a duration so tiny that no relation of before and after breaks out within its boundaries. Such an existence is infinitesimal and has no boundaries. Within it nothing can happen.

Thus the same logic which condemns a perceived duration as a specious present must also condemn any occurrence, any objective happening, as spurious and specious. The specious present is a present the whole of which cannot exist. There are, indeed, additional difficulties in the psychological specious present. In intuited duration or change, we apprehend the passage from earlier to later. We discriminate between two phases, one of which comes before the other. But if we are to apprehend any relation, the related terms must be simultaneously discriminated. They must, together with the relation between them, be present. But the earlier is not present when the later is. This is just what is meant when it is said to be earlier. An objective occurrence is exempt from this difficulty. Two successive phases of any persisting thing need not be dependent upon any discrimination of a perceiver. But the fundamental difficulty is not thereby avoided. How much of the persistent exists now? How inclusive is a real now? If it has any finite stretch whatever, it is characterized by an internal di-

versity of before and after, which cannot exist together. If existence belongs to one moment, it is lacking in all earlier and later moments. Thus, if the span of perceived duration, the psychological present, is specious, so is the existence of any event whatever. If the specious present is condemned because successive events cannot be held together in one act of perceiving, every event must be condemned. An event takes time. It has a duration. Within that duration there is the difference between earlier and later. They cannot coexist. But both are intrinsic to the event, therefore the event cannot exist. If past events have no existence, neither can any earlier moment or aspect of a single event exist at the time its later moments transpire. The world exists momentarily at any one instant of time. It is annihilated at that instant and a new world created at the next instant of time. Events, changes, persistence, and existence beyond an instant all become equally specious.

Where have we gone astray in reaching so intolerable a result? For I assume that events do occur, things change, and something persists, and that any analysis which leads to the conclusion that such things as these are specious has somewhere blundered. The difficulty lies, I think, in our having assumed that the temporal form, the relation of before and after, taken by itself, determines the conditions of existence. All existence may well be subject to this temporal pattern, but the question of what exists is not to be answered solely with respect to the requirements of the temporal order. If the time order of before and after exclusively dominates the determination of existence, then no span of time within which there is necessarily a before and after, can exist. And if anything whatever exists beyond a momentary instant, then the time form of before and after does not exclusively determine what may be said to exist. This is to say that in every event, however short, the momentary instant is transcended. There is an existent something which spreads across a plurality of instants. This is just what an event is. Its occurrence, which is its existence, occupies a span of time within which the temporal relation of before and after may be discerned. The temporal order is a character of events, of occurrences. It is a perverse procedure to use the time form of before and after, which is an adjective of events, in such a way as to declare the original substantive event nonexistent, except that

part of the event which coincides with an instantaneous now. Unless you are willing to ascribe existence to a duration within which an earlier phase is followed by a later, you cannot so much as talk about an event, an occurrence. If the world contains such events as lightning flashes and muscle twitches, then there are existences which occupy a duration block. Lightning flashes and muscle twitches are short events. But if the world contains such events as these, I can see no grounds based upon the supposed requirements of the temporal form of earlier and later which prevent one from ascribing existence to occurrences which occupy a longer span. If there are existences which transcend by ever so little an instantaneous now, then, so far as anything about time is concerned, there can be existences and occurrences having any time span imaginable. If a lightning flash exists as a single event, so can a thunder storm, the erosion of a river bed, the evolution of the solar system. If a muscle twitch exists and occurs, then the writing of this paper, the living of my life, the rise of modern capitalism, the evolution of humanity occur and exist. My statement is hypothetical. If an occurrence so nearly momentary as a flash of lightning exists, then there is nothing which can be drawn from the purely temporal relation of earlier and later to prevent one from ascribing existence to any occurrence so long as it is one occurrence, a single individual event. I may put it in this way. It is asserted that the rise of modern capitalism cannot be said to exist as a whole because it consists of an historical sequence of events. The earlier events transpire and occur before the later events. An event has existence only when it is occurring. Past and earlier events are not occurring. Therefore they do not exist. The banking operations of the Fuggers are not now going on. But if this be so, then the same analysis must be applied to any occurring event, however brief it may be. For the relation of earlier and later, of before and after, applies to a flash of lightning just as much as it applies to the development of modern capitalism. The earlier phase of the flash has occurred and is gone when the later phase occurs. If what has gone is synonymous with what does not exist, then there can be no occurrence or existence of a lightning flash. Now I cannot see that it is incumbent upon any philosophy to prove that there do occur such events as lightning

flashes. Unless such events existed, there would be no temporal order of before and after. Just this is the meaning of the assertion that there is no time *an sich*, that it is adjectival to events and processes.

I am compelled to conclude that the so-called and miscalled specious present is as real as any event whatever. When I listen to music, I am conscious of a duration within which I am aware of the sounds actually being heard as belonging to an entire movement or sonata. I certainly do not hear all the chords comprising the sonata in any one present. The present in which the opening chords are presented, actually heard, is not the present in which the final chords are heard. The focus of actuality traverses a real entity, the whole sonata. The event which is the playing of the sonata may have a time span of ten minutes. It exists throughout its entire duration. The physiological and psychological rhythms of my body-mind set far narrower limits to my events, to any one actual present in my experience. Hence, for me, the chords actually heard in any one present are embedded within occurrences belonging to a real event which has a duration overlapping that of any actual sounds. The real encompasses the actual and, under the temporal form, it denotes events within events, each enduring throughout its own occurrence. The existence, that is, the occurrence of events determined by my physiological mechanism and rhythm is no more specious than is the occurrence, duration, and existence of the whole sonata. My awareness of what is not actually being heard is a consciousness of something not present. The total field of awareness, the whole sonata, transcends the boundaries of what is actually being heard.

There is nothing, then, in the temporal relation of earlier and later which determines the boundaries of an event's existence and occurrence. The temporal form cannot restrain our ascribing occurrence to existence spread out over a long time. Once the instantaneous moment is transcended, there is nothing about the temporal relation to tell us where to stop in drawing the limits of occurrent, existing events. We have now to ask what it is that does determine the boundaries of any event. What makes any event, long or short, an individual event? This is at the same time the question of the boundaries of any present. The occurrence of any

event transpires in some present. If an event is entirely over, then its occurrence took place in a present which has now become past. We are to ask, then, what is denoted by any present, by any individual, occurring event. We have seen that we get no help from the formal temporal relation of earlier and later. If we take this as a touchstone, every present and every event are whittled down to an infinitesimal instant in which nothing happens. So far as the temporal pattern is concerned, the way is open to make an occurring event and the present in which it occurs as inclusive as may be required on other grounds.

What does determine the boundaries of any present event? There are two possible answers to this question. One is that the boundaries of an occurring event are set by the so-called specious present of an observer. What is now occurring depends upon the span of time which is perceived as a present duration block. There are no natural divisions in processes as they go on. The other is that the boundaries of occurring events are intrinsic to events themselves. The event is an objective entity whose duration span is independent of any perceiver's so-called specious present.

The first of these two views is subjective. The unity ascribed to an event, the time during which it is said to be now occurring and present, is read into an otherwise continuous process. The cleavage between present and past, between what is now going on and what has occurred, is determined by the chance nature of some perceiver's time span. That acts as a cutter which slices the continuous processes of nature into present, past, and future. This theory is, I think, attended by all the difficulties which encumber any subjectivistic theory. Can we be content to make the arbitrary length of our time span the measure of the existence and duration of nature's events? An observer with a longer time span would report as now present occurrences which an observer, equipped with a shorter time span, would locate in the past. Here again, I suspect that such a view is ultimately the result of supposing that the temporal form of before and after, taken by itself, determines existence. Only, in this illustration, existence is not pulverized into a momentary instant in which there is no duration. Existence is now evenly spread over the entire series of instants defined in terms of the temporal order of before and after. Slow-moving,

continuous changes characterize the entire series. Existence is identified with the flux of continuous change and process. Within this continuous process, there really are no events, that is, no individual temporal existences which introduce natural boundaries, rhythms, and crises into the even flow of continuous process. Existence, so conceived, is indifferent to the distinction between present and past because any place in which the series is cut is wholly arbitrary. If it is introduced at all, it is only from the side of an observer and the duration of any present but reflects the contingent time span which the observer happens to have. The traditional assumption of orthodox science, that science is concerned with process and not with events, implies that in truth there are no events except arbitrarily selected slabs of process whose duration, occurrence, and existence are determined by nothing intrinsic.

How is an event distinguished from a process? A process as such may be analyzed, without remainder, into a succession of states, one after another. The temporal schema of before and after, and nothing else, is the determining form of process. Unbroken continuity both within a process, taken as something finite, and spreading indefinitely beyond its edges into past and future, is the characteristic earmark of process. Ideally, nature, when brought under this category, is one continuous process. We may in thought, or in the interests of action, slice the continuous process into segments. But there is nothing within the process itself to indicate where such cuts should be made. In such a world of continuous process, there are no events. For an event is an occurrence which has natural boundaries. It has a beginning and an end. It is individual. An event marks a discontinuity and break in the continuous flow of process. Events may be said to be embedded within process. They supervene upon process. This is only to say that the temporal form of before and after does not determine events in the same complete manner in which it determines process. If the world were nothing but process, we should have to say either that the world exists at an instant or that the entire process exists. Either existence would be pulverized to a moment or time would be spatialized and the world process conceived as spread out in its entirety in the dimension of time. It is the exist-

ence and occurrence of events which yields something between these two extremes. Events have natural boundaries within the continuous flow of process. Events are individual existences.

We may now go one step farther. In the occurrence and existence of any event, the temporal pattern of before and after is transcended. There is something that perdures throughout a succession of next-to-next moments and constitutes them phases or aspects of an individual event. When an event is viewed as an arbitrarily selected slab of process, this perduring somewhat is neglected and abstracted from. The event is regarded solely under the rubric of succession, of before and after. The event is dissolved into process. There is no event which cannot be so treated. Science is, in the large, such a description of occurrences, which views all individual events as melted in the continuous flow of process. The pattern of such description is the temporal pattern of before and after. This is what causality means for scientific description. This merging of individual, historical events with their natural boundaries into continuous process is the meaning of the statement that scientific description is not concerned with individuals.

What is it that can be said to endure from the beginning to the end of a natural, historical, and individual event? I have spoken in a previous paper of such a pervasive, enduring somewhat as a "general scheme," a "governing tendency." An event is characterized by the operative presence, throughout a span of duration, of a determining pattern whose endurance binds into an individual event what otherwise would be merely successive moments of a continuous process. What was called by Hegel and Marx a dialectical process is something of this sort. It is continuous process, characterized by the temporal form of before and after, plus the presence of dramatic, individual unities which are more than merely temporal. Accumulation, tension, transition to new individual forms and structures, crises—all these and more mark the *event*, one may say the dramatic character of the actual processes of nature and history. Neither nature nor life is just one thing after another, whether qualified with the familiar epithet or not. They are this, to be sure. But there are events as well as processes.

How inclusive may an event be and still be an event? Since an event marks a natural division within process and exhibits a pat-

tern other than just the temporal form of succession, it follows that the temporal relation itself provides no criterion for determining how long or short an occurrent event must be. We have seen that if we take such a temporal form as alone determinative, we shall say that existence belongs only to the present instant, or to the entire process. We either pulverize existence or spatialize time. The inclusiveness of any individual event is determined by the general scheme, the governing tendency, the operative universal of just that event. Nothing derived from the temporal form of before and after prescribes its occurrence, duration, or existence. Were the whole of nature one individual event, displaying the development of a single theme, then the whole of nature would comprise one single duration, existing in one present. For such a monism, there would be no past or future. Time would enter only as the form of existence of one single event. Time relevant to it, if indeed it could still be called time, would be one eternal present. Actuality would characterize all that is real. The nature and history which we know comprise an indefinite plurality of events. Events in the plural happen. They come into being, endure, are actual throughout their duration, and perish as actual events. But in ceasing to be actual they do not become just nothing. They are enacted and remain real. They continue to possess just the kind of existence which the time form of before and after permits. For although the time form does not prescribe the conditions of the duration or existence of events, it is a form which permits lapsed actualities, no longer actual just because they are lapsed, to inhabit the domain of the real past. The actuality, occurrence, and presentness which they once had is gone forever. But that they were once actual is no consequence of anything now imputed to them by us from the standpoint of our actual present. They had that actuality in their own right, and this is just what we mean when we speak of them as past.

The plurality and diversity of nature's events is exhibited not only in the successive supersession of her happenings, of her actualities. For every event is internally manifold and comprises constituent events. The French Revolution was one event. The existence of the French Revolution was its enactment. The enactment endured through a span of time. The Fall of the Bastille was

a constituent event of the French Revolution. And that event comprised other events—shouting, throwing stones, and battering down walls. It often happens, though not always, that the more inclusive a single event is, the more dilute and formal becomes the defining principle which marks it off as an individual occurrence. At the limit of such dilution, an event melts into process, flux, mere successiveness. But the temporal form is never wholly in abeyance. Events terminate and are followed by later events. The event, having duration, is superimposed on the bare form of succession. In the duration of events and of every present, the merely temporal relation is transcended but never absent. Whatever endures and persists, whatever is present, bears witness both to the irrelevance of the merely temporal, of sheer successiveness, and to its inescapable presence, ensuring the eventual termination of every event, including the reading of this paper.