

INTERNAL RELATEDNESS AND PLURALISM IN WHITEHEAD

It will be our contention that there is a fundamental inconsistency in Whitehead's *Philosophy of Organism*, and hence that, whatever be its other merits, the system cannot be considered satisfactory until this defect is somehow removed. We call this inconsistency fundamental because the principles between which it holds are two which Whitehead himself believed, and believed rightly, to be of basic importance in the structure of his philosophy; *viz.*, the Principle of Internal Relatedness and the Principle of Pluralism. In exhibiting and commenting on the inevitable conflict between these principles, we shall proceed as follows: first, an exposition of each of the principles as it is found in the context of the philosophy of organism; second, a demonstration of their apparent incompatibility; and finally, an examination of certain features of Whitehead's philosophy which, if tenable, would enable him to avoid this difficulty.

I

We turn first to the Principle of Internal Relatedness. The particular aspect of Whitehead's doctrine of relations to which we give this title is that which concerns the relations of actual occasions, the particular concrete momentary events of which the world consists.¹ Put precisely, Whitehead holds that all the relations in which a given actual occasion, A, stands to other entities are internal to it in the sense that they form part of its essential nature; they are essential to its self-identity; without standing in just those relations it could

¹ In what follows we shall for the most part refer to the basic particulars of Whitehead's metaphysics as "actual occasions" or "actual entities," rather than "events"; for the former two are the terms he used for this purpose in the most systematic presentation of his philosophy, *Process and Reality*. The quotations given below are easily converted to the language of *Process and Reality* by just substituting "actual occasion" or "actual entity" for "event."

not be just the particular individual which it is. Or, if it is considered undesirable to speak of an entity not being itself, we can put the point by saying that where A is internally related to B, no individual, x, could conceivably be identical with A unless it had that relation to B. Whitehead's most decisive statements of this position are to be found in *Science and the Modern World*:

The theory of the relationship between events at which we have now arrived is based first upon the doctrine that the relatednesses of an event are all internal relations². . . This internal relatedness is the reason why an event can be found only just where it is and how it is, that is to say, in just one definite set of relationships. For each relationship enters into the essence of the event; so that, apart from that relationship, the event would not be itself. This is what is meant by the very notion of internal relations.³

The position here maintained is that the relationships of an event are internal, so far as concerns the event itself; that is to say, that they are constitutive of what the event is in itself.⁴

This fundamental thesis of the essential interconnectedness of particular occasions is reiterated by Whitehead in a variety of formulations throughout his later works, all expressing the same basic conviction. To say that all the relations which an event has are internal to it is also to say that it is essential to it that the other entities which form the opposite termini of these relations be just as they are; for unless the other relations were just as they are, the event could not have just the relationships it has. Thus Whitehead can express the doctrine of internal relations (or rather an implication of it) by saying that every actual entity requires all other actualities in order to be what it is. "Every actual occasion exhibits itself as a process, it is a becomingness. In so disclosing itself, it places itself as one among a multiplicity of other occasions, without which it could not be itself."⁵ The same truth can be stated in another way by the concept of *relevance*. "It will be presupposed that all entities or factors in the universe are essen-

² Alfred North Whitehead, *Science and the Modern World* (New York: Macmillan, 1925), p. 179.

³ *Ibid.*, p. 180.

⁴ *Ibid.*, p. 152.

⁵ *Ibid.*, p. 253. Cf. also *ibid.*, p. 278 and *Process and Reality*, p. 38.

tially relevant to each other's existence."⁶ In other words, if we take any given actuality, all other entities in the universe are essentially relevant to it in the sense that since it essentially involves its relations to them, it could not be, nor be fully understood, without them. Finally, "an event has to do with all that there is, and in particular with all other events";⁷ "has to do" in the sense that its transactions or dealings with other things are constitutive of its own nature.

The Principle of Internal Relatedness has another form, the understanding of which is of importance in uncovering the contradiction in which we are interested; we may, following Whitehead, call this form the Principle of Mutual Immanence. It consists in asserting that actual occasions are present in, or parts of, each other. Particular events are not, as is supposed by mechanistic philosophers, each isolated in its spatio-temporal region, doomed forever to remain within its inexorably fixed limits; but instead each, in some sense, has its being inextricably intertwined with all other actualities. To adapt Shelley a bit:

Nothing in the world is single;
All things by a law divine
In another's being mingle.

More precisely, any actual occasion contains as ingredients, or components, all entities to which it is (internally) related, and conversely it enters as an ingredient into all the actual occasions which are (internally) related to it. Some of the chief passages in which this contention is set forth are the following:

For an actual entity cannot be a member of a "common world," except in the sense that the "common world" is a constituent of its own constitution. It follows that every item of the universe, including all the other actual entities, are constituents in the constitution of any one actual entity.⁸

All entities, including even other actual entities, enter into the self-realization of an actuality in the capacity of determinants of the definiteness of that actuality.⁹

⁶ Alfred North Whitehead, "Immortality," in *Essays in Science and Philosophy* (New York: Philosophical Library, 1947), p. 77.

⁷ *Science and the Modern World*, p. 151.

⁸ *Process and Reality*, p. 224.

⁹ *Ibid.*, p. 340.

In fact if we allow for degrees of relevance, and for negligible relevance, we must say that every actual entity is present in every other actual entity.¹⁰

We have spoken of this theory as another form of the Principle of Internal Relatedness, because Whitehead himself commonly treats them as logically equivalent, and often uses them interchangeably.¹¹ Although he is not very explicit as to his grounds for doing so, we can, I think, take the following passage as indicative of the considerations which weighed with him in asserting this equivalence.

According to the doctrine of relativity which is the basis of the metaphysical system of the present lectures, both of these notions involve a misconception. An actual entity cannot be described, even inadequately, by universals; *because other actual entities do enter into the description of any one actual entity...* Every so called "particular" is universal in the sense of entering into the constitution of other actual entities.¹²

If we were to expand the argument which seems to be implied in this passage, it would run somewhat as follows: To hold a theory of internal relations with regard to actual entities (here described as a "doctrine of relativity") is to hold that we can only say *what* any given actual entity, A, is (*i.e.*, can only say what constitutes it as the particular actuality which it is) in terms of the relations it has to other entities. But this, in turn, implies that other actual entities "must enter into the description of any one actual entity." For we cannot describe A, *i.e.*, tell what A essentially consists of, without rendering account of A's relations to other actual entities, and thereby including in the account the other terms to which A has the relations. But any entity which is involved in the account of the nature of a thing must be involved in some sense in that thing's nature. If we can't completely describe the essential nature of A except in terms of B, then B is involved as a factor in A's essence. If we can only disclose A's nature in terms of all other actual entities (or any selection thereof), then those other actual entities are components of A. Whatever be the merit of this argument, it seems to have been

¹⁰ *Ibid.*, p. 79.

¹¹ See, e.g., *ibid.*, p. 79; *Adventures of Ideas* (New York: The Macmillan Co., 1933), pp. 231, 356; *Science and the Modern World*, p. 137.

¹² *Process and Reality*, p. 76; italics ours.

the ground for Whitehead's assertion of the equivalence of the two principles in question.

Thus to say that A is internally related to all the entities to which it is related, is to say that it contains all these entities as ingredients within its nature.¹³ We shall follow this asserted equivalence of the two theses by henceforth using the phrase "Principle of Internal Relatedness" to refer to both.

But in what sense are the terms "present in," "part of," etc., used when we speak of one actual occasion being present in or part of another? Surely one atomic event, A, cannot be present in another atomic event occupying a different spatio-temporal region, in the sense in which a drawer is present in a desk or a fish in a fish-bowl. Whitehead recognizes this as a major problem for his philosophy. "The philosophy of organism is mainly devoted to the task of making clear the notion of 'being present in another entity'."¹⁴ The solution he gives is based on the conception of an actual occasion as an act of experience. Each of the momentary events which constitute process is to be conceived, according to Whitehead, as an act of feeling (in most cases unconscious, to be sure), a process of fusing together partial feelings, or "prehensions," into one determinate integrated experiential unity. But an experience, according to Whitehead, always involves the presence within it of the objects experienced.¹⁵ We can have no awareness of "any remote occasion which enters into no relationship with the immediate occasion so as to form a constitutive element of the essence of that immediate occasion."¹⁶ We can only concern ourselves experientially with that which is in experience, which is present to us so as to be capable of evoking concern. To be experienced in any way is to be an

¹³ Of course for the two to be logically equivalent there must be an implication from mutual immanence to internal relatedness as well as vice versa. But this is obviously the case. Any whole, e.g., a brick pile, is internally related to each of its parts, e.g., a single brick; for if it didn't have this whole-part relation to just that brick, it could not possibly be just the brick pile which it is, although it might be a pile very similar to the original one.

¹⁴ *Ibid.*, pp. 79-80.

¹⁵ *Adventures of Ideas*, p. 287.

¹⁶ *Science and the Modern World*, p. 38.

ingredient in that act of experience. Granted this view of the relation of a sentient act to its objects, and granted a pan-psychist theory of events, we are supplied with a way of conceiving the mutual immanence of events. Since a given actual occasion, A, is an act of experience, any relations in which it stands to any other entity, x, will be interpreted as a feeling or prehension of that entity on the part of A;¹⁷ and, by the principle just expounded, this will necessitate the inclusion of x within A as an immediate datum, *i.e.*, as an ingredient in the experiential unity which constitutes A. Thus "the way in which one actual entity is qualified by other actual entities is the 'experience' of the actual world enjoyed by that actual entity, as subject."¹⁸ In this way Whitehead's view of the world as consisting of internally related momentary events, receives a concrete interpretation as a world of acts of experience, each containing others through its appropriation of them as immediate data in its own felt unity.

We now turn to the second of the principles with which we are here concerned, the Principle of Pluralism. According to the philosophy of organism the world is made up of many acts of experience, each of them finite in spatio-temporal extent, each of them limited in the selection of possible patterns of feeling which it realizes, each of them exclusive of much that it might be and is not, each of them placing itself as one among the many as well as fusing the many into the one. Whitehead can thus describe his philosophy as a cell theory of actuality,¹⁹ or as an "atomism" of experiential events.²⁰ But the pluralism which we maintain to be incompatible with internal relatedness involves more than the mere assertion that there is in some sense a plurality of entities in the world, a statement which would be denied by no one.²¹ In order to convey precisely the stronger sense of pluralism which we have in mind, we shall introduce a few technical terms.

¹⁷ *Process and Reality*, p. ix; *Adventures of Ideas*, pp. 299-300.

¹⁸ *Process and Reality*, p. 252. Cf. *ibid.*, pp. 81, 249, 327; *Adventures of Ideas*, pp. 300, 305.

¹⁹ *Process and Reality*, p. 334.

²⁰ *Ibid.*, pp. 40, 53.

²¹ Except perhaps by Parmenides, and his disciples through the centuries; *e.g.*, the Schelling (whether real or fictional we shall not attempt to decide) who plays the part of whipping boy in Hegel's *Phenomenology*. But of course even Parmenides has his "Way of Belief."

An entity, A, will be said to have a higher degree of unity (or be more unified or more integrated) than another, B, if the constituent parts of A depend more closely on each other than do those of B, if the removal of one part of A will affect both it as a whole and the other parts more than a similar transaction would affect B and its parts, if a part of B can be described in abstraction from the other parts less inadequately than would be possible for a part of A. For example, a tree has a higher degree of unity than a pile of sand. Take away a few grains of sand from the latter, and the remaining heap is almost indistinguishable from its predecessor. But remove a few cells from the former, especially if in a vital spot, and the remaining organism and its parts undergo a marked transformation as a result of that removal.

In terms of this notion we can distinguish between "pluralistic" and "monistic" sets. A given set of entities will be said to be a pluralistic set if and only if there is no entity which (1) includes all the members of the set as parts, and (2) has a degree of unity at least as strong as that enjoyed by each member of the set.²² Such a set will also be said to constitute an ultimate plurality. Per contra, a set with respect to which such an entity does exist can be termed a monistic set. For example a legislative body, at least as commonly conceived, would constitute a pluralistic set. On the other hand, the organs, muscles, bones, nerves, etc., of a man would be commonly conceived as forming a monistic set.

In these terms a philosopher is a metaphysical pluralist if he holds that the ultimate constituents of the world form a pluralistic set; or, in other terms, if he holds that there is a plurality of exemplifications of the basic metaphysical categories and that there is no exemplification which contains all others as parts.

Now it is evident that Whitehead holds to pluralism in this sense. He is emphatic in denying that there is any all-inclusive act of experience, or any other all-inclusive actuality of a comparable grade of unity, which embraces all finite

²² If the members of the set exhibit various degrees of unity, then the definition would have to be amended to read: "at least as strong as that enjoyed by the most unified member of the set."

experiences as component parts.²³ It is not the case that there is any one cosmic actual occasion which fuses all finite experiences into an immediate unity of feeling. In fact, Whitehead considers that the conditions of aesthetic experience make it impossible that there should be an all-inclusive experience. There are mutually incompatible aesthetic possibilities which can, and do, receive felt realizations separately, but cannot be experienced jointly.

Every occasion of actuality is in its own nature finite . . . Whatever is realized in any one occasion of experience necessarily excludes the unbounded welter of contrary possibilities. There are always "others," which might have been and are not. This finiteness is not the result of evil, or of imperfection. It results from the fact that there are possibilities of harmony which either produce evil in joint realization, or are incapable of such conjunction. This doctrine is a commonplace in the fine arts.²⁴

Hence "all realization is finite, and there is no perfection which is the infinitude of all perfections."²⁵ "The mere fusion of all that there is would be the nonentity of indefiniteness."²⁶ It should be abundantly clear from these quotations that Whitehead holds that the actual entities of which the world consists form an ultimate plurality, not reducible to any encompassing unity, *i.e.*, that he maintains the Principle of Pluralism as herein defined.

II

We have seen that Whitehead holds to both internal relatedness and pluralism with respect to the actual occasions which form the ultimate constituents of the world. But it seems that the former of these principles implies the negation of the latter. For, according to the former, all of the relations in which any actual entity stands are internal to it, and this in turn implies that it contains within its experience all the other termini of these relations. In other words, the Principle of Internal Relatedness says that an actual entity contains all

²³ Alfred North Whitehead, *Religion in the Making* (New York: The Macmillan Co., 1926), p. 92.

²⁴ *Adventures of Ideas*, p. 356. Cf. also *ibid.*, p. 333.

²⁵ *Ibid.*, p. 330. Cf. also *ibid.*, p. 356.

²⁶ *Science and the Modern World*, p. 137.

the entities to which it is related. But it seems that any actual entity must be related to every other actual entity by some link or other; for with regard to any two actualities we can form some true proposition asserting some relation between them, even if it is only one of similarity or difference. Therefore any actual entity you take, as related to every actuality, will be revealed on examination to contain all these actualities within it as ingredients in its nature; any actual entity, when viewed in the full concreteness of its interrelations, will be found to be the all-embracing totality of process. Thus the theory of internal relatedness, as held by Whitehead, seems to have as its consequence the existence of at least one actuality which is all-inclusive — this characteristic holding, in fact, of any actual entity we can specify. And this is the denial of the Principle of Pluralism.

Indeed, the proper conclusion seems to be still stronger; *viz.*, that there is and can be only one actual entity; for if we were to suppose a plurality of different actual entities, A, B, and C, each of them, as internally related to all the rest, would have to include the rest, so that what we called A is really $A + B + C$; likewise what we called B, and what we called C, is each $A + B + C$; so that each member of the supposed plurality turns out on examination to be the whole set. The apparent result then is that we can really make no distinction at all between the three supposedly different actual entities; each of them is $A + B + C$, and as such they are identical. Hence the proper conclusion would seem to be that there can be only one actual entity, and that the various partial components of this inclusive actuality, *i.e.*, the finite experiences of the world, are not themselves actual entities, but rather prehensions which go together to form the one actual entity. But whether or not we are justified in drawing this further inference, it seems that the theory of internal relations does imply that there is at least one such actual entity; and this would be enough to contradict Whitehead's thesis that the set of actual entities forms an ultimate plurality.

We should not, however, suppose that the matter is quite so simple. Whitehead is by no means unaware of the way in which a theory of internal relations is apt to lead the unsuspect-

ing metaphysician into the morass of monism; and as a precaution against falling victim to such a fate, he tries to introduce certain qualifications and limitations into his theory of internal relatedness which will have as their effect the avoidance of any monistic conclusion, while still preserving the spirit and letter of the doctrine as expounded above. In fact there are two such limitations, or further specifications, which, if tenable, would somewhat alter the picture. Therefore, before we can repose any confidence in our conclusion, we must examine each of these qualifications and determine whether it accomplishes the purpose for which it is intended.

The first of these qualifications has to do with the relevance of temporal position for the question. Our argument for the incompatibility of the two principles was based on the premise that any actual occasion is related in some way to every actual occasion. But Whitehead would not accept this premise in the unqualified form that is given here; he would insist that we qualify it to read *every actual occasion is related to every actual occasion in its past*, or more precisely, *related to every actual occasion which has completed its becoming prior to the beginning of the becoming of the actual occasion in question*. With this limitation the principle of internal relatedness would require any given actual occasion to include all its predecessors, but not its successors and contemporaries. Whitehead thinks that this limitation is necessary because he holds that at the time at which an occasion happens its predecessors are the only actualities which there are to be included or to be related to; they are the only actualities which, at that time, are "there" so as to be available for inclusion as data within the concrescent occasion.

Any actual occasion, A, as a finite act of becoming, requires a certain finite duration, d, for this activity. With respect to this duration, we can distinguish three groups of occasions:²⁷

1. Those which have completed their concrescence prior to or at the beginning of d.
2. Those which will begin their concrescence at or after the end of d.

²⁷ See *ibid.*, pp. 106-107, 253; Whitehead, *Process and Reality*, pp. 188-192.

3. Those whose process of concrescence falls wholly or partially within *d*.

These groups will hereinafter be referred to as the past, future, and present, respectively, of *d*; or alternatively, as the predecessors, successors, and contemporaries, respectively, of *A*.²⁸

In order to discuss profitably the question as to whether the members of each of these groups are available for inclusion as data in the experience of *A*, we must, following Whitehead, distinguish two modes of being proper to an actual entity — viz., subjective immediacy and objective immortality.²⁹ An actual entity exhibits subjective immediacy insofar as it is itself engaged in a process of fusing given data into one complex experiential whole. At the time during which it is so engaged the actual entity is said to have 'formal reality,' the reality appropriate to a subject of experience. On the other hand, an actual entity exhibits objective immortality insofar as it is functioning as a datum or component in another such process of feeling; and at any time at which it plays, or could play, such a role, it is said to have 'objective reality,' the reality appropriate to an object of experience. For convenience of exposition, we shall use the term 'existence' as equivalent to 'subjective immediacy', and the term 'actuality' as equivalent to 'objective immortality'.

It is Whitehead's contention that at a certain duration, *d*, only the present exists, and only the past is actual. Taking these assertions in order, during *d* it is only those occasions which are, at that time, in the process of attaining a unity of experience which exist, or have subjective immediacy. This is really true by definition; for the duration we are calling *d* is distinguished from all others by its being the locus of a certain slice of the world process, and not of any other slice; and so the events which constitute this slice of process are, of course, the only ones which are in process, or exist as active subjects, in this duration. With respect to actuality the situation is quite different. Here Whitehead holds that only the past is actual. Almost all philosophers would agree that, as we defined

²⁸ When such qualifying phrases as 'with respect to *d*' and 'with respect to *A*' are not explicitly expressed, they are to be understood.

²⁹ See *ibid.*, pp. 34, 335-336; Whitehead, *Science and the Modern World*, pp. 151, 152-154.

the terms, *at least* the past is actual. For a past event is one which, having already completed its process of becoming, now has a fixed determinate constitution, and so can function as a perfectly definite terminus for inquiry. Any statement which we make about it is now determinately true or false, in that it now conforms or fails to conform to a definite objective fact, even though we may not now know which is the case. Whitehead would, however, command less widespread assent on the proposition that *only* the past is actual, the present and future being unactual. Let us see his reasons for this position.

I think that the root of this view is to be found in his ninth categoreal obligation: "The concrescence of each individual actual entity is internally determined and is externally free."³⁰ On this indeterministic principle, each actual entity is an act of spontaneous self-creation of a unity of feeling out of given data; although certain limitations are laid upon it by the past (as exemplified in those data), its exact nature is only decided in its act of becoming and before that act it has no sort of being. Its constitution is to a certain extent shaped for it by its predecessors, for it must be an experience with just these data as components; but the exact way in which it reacts to these data, meets them with a flood of subjective feeling, and weaves them into one coherent whole, is due, in the last analysis, to its own free spontaneity. Hence actual entities future to *d*, having not yet undergone their process of self-creation, have, as of *d*, no status as determinate individuals.³¹ Having not yet performed the decision which will resolve the indeterminations concerning the details of their nature, they cannot now function as fully determinate data of experience. There is now no realm of future individuals, even in the ideal sense of a realm of possible objects for thought or experience; and there will not be until such time at which these individuals undergo the process which constitutes their existence.³² Hence there are questions concerning them which now have, not just for our limited knowledge but absolutely, no determinate answers; they cannot function as ideal limits for inquiry; they are, in the sense given above to that term, not *actual* at *d*.

³⁰ Whitehead, *Process and Reality*, p. 41.

³¹ *Ibid.*, p. 328.

³² Whitehead, *Adventures of Ideas*, pp. 247, 248, 249, 251.

And the same conclusion follows, for the same reasons, with regard to the present.³³ Occasions present with respect to *d* (A and its contemporaries) have not completed their concrescence by the beginning of *d*. Some complete it during *d*; others complete it at the end of *d*; still others complete it after *d*. But in any of these cases, since each can have no status as a fully determinate individual until the completion of the self-decision which constitutes its definiteness, none of them are actual at the beginning of *d*. But to be actual at (or in) *d*, i.e., to be able to function as a datum for A, or for any other occasion whose period of concrescence defines *d*, an actual entity must be available as a definitely constituted object at the beginning of A's concrescence; for it is at the beginning that A appropriates its initial actual data from outside itself; the remaining stages of the concrescence being occupied with rearranging and unifying them, and adding conceptual data. And since none of the contemporaries of A meet this qualification, none of them are actual at *d*. It follows then from Whitehead's special brand of indeterminism that only those occasions which have been actualized by the beginning of *d* could be said to be actual in *d*.

Granted this theory of the ultimacy of temporal standpoint, the required limitation of the Principle of Internal Relatedness follows. For at the time at which A happens, its predecessors are the only occasions which have a determinate objective status; they are the only available relata, the only occasions which are "there" so as to be available for inclusion as components in A's constitution. Thus if we "take time seriously," we must restrict the Principle of Internal Relatedness (as far as actualities are concerned) to the predecessors of the occasion in question. Whitehead can still, in a sense, call his theory an unqualified theory of internal relations, for on his view it is true to say that an actual entity is internally related to all other actual entities — meaning all that there are at the time of its concrescence. But we must be careful to understand the principle, when stated unrestrictedly, in this sense.³⁴

³³ *Ibid.*, pp. 252, 280.

³⁴ This doctrine will, if stated fully, involve something like the medieval distinction between real and nominal relations. For in speaking at a certain duration, *e*, about A (which occurred at an earlier duration, *d*), we speak of the way in which B, which occurs at *e*, includes A as a

It can easily be seen that this temporal qualification on the Principle of Internal Relatedness enables, nay requires, Whitehead to hold that actual occasions form an ultimate plurality. There are, in fact, two sorts of pluralism which it entails corresponding to the two groups which are excluded from the field of *relata* for any actual occasion.

In the first place, the fact that no actual entity can include its contemporaries within its nature insures that, if we restrict our consideration to any one duration, within that duration there is an irreducible plurality; *i.e.*, there is no occasion within that duration which contains all the other occasions within it as parts.

It might seem that this is but a 'temporary' pluralism, because after all the constituents of *d* have completed their concrescence any subsequent occasion will contain them all within its unity. But the point is that at that later duration there is a similar situation; the occasions which are then in process of concrescence form an ultimate plurality too, as of that duration. At any time there will be actualities, all existing at that time, which are not as of that time all components of any one unity. If this is a 'temporary' pluralism, it is a permanently recurring one.

In addition to this "spatial" pluralism, which has to do with the actual entities existing at the same time, Whitehead's

component; and hence we have to speak of *A* being in some sense reciprocally related to *B*; *e.g.*, if *B* includes *A*, then *A* is included by *B*; if *B* feels *A*, then *A* is felt by *B*, etc. What we have to say, on Whitehead's theory, is that while the relations of *B* to *A* are real relations, the relations of *A* to *B* are only nominal ones. When we say that *B* includes *A*, we are saying something about the intrinsic nature of *B*, for it is part of the process which constitutes the very being of *B* that it has *A* as a datum for feeling; but it is nothing to the intrinsic nature of *A* that it is felt by *B*, for this feeling takes place after the process formative of *A* had reached its conclusion; at the time of *A*'s process it had no determinate being and so could play no part in *A*'s concrescence. Thus we would have to distinguish, among statements in relational form, between those which state a relation which is real in the nature of things, and those which are merely circuitous ways of speaking. To say that *A* is felt by *B* is not to say anything about *A*, but just a cumbersome way of saying something about *B*; *viz.*, that it feels *A*. In this manner we might maintain the position that *A* is really only related to its predecessors, while still allowing, as a manner of speaking, statements about the relations of *A* to its successors and contemporaries.

world also exhibits what we might call a temporal or a linear pluralism, this being due to the second restriction made on the Principle of Internal Relatedness; *viz.*, the impossibility of an actual occasion's containing its successors. An actual occasion, A, occurring at d, will contain every actual occasion which forms a possible datum for it, *i.e.*, all which have been actualized in its past. But it will not thereby be all-inclusive in any absolute sense, for at each succeeding stage of process new occasions are being actualized which were not actual at d, and so could not have been included by A. And since this account applies to every actual occasion, there can be no all-inclusive actuality. At any next moment, then, there will ensue a more inclusive synthesis, and this new one will in turn suffer the same fate of being superseded, and so on ad infinitum.

If, then, Whitehead can maintain his theory of the ultimate reality of time, with its implication of the non-actuality of the present and future, he can maintain both of the principles we are considering. But can he do so consistently with his own principles and with the facts he is bound to admit, if he is to keep his system adequate to experience?

III

Let us first consider the future. It should not be supposed that Whitehead denies that an event is, in any way whatsoever, related to subsequent process. On the contrary he not only admits, but insists, that, in some sense or other, every actuality contains an essential reference to the future. The possibility of such a reference is presupposed in every aspect of our daily life.

It is evident that the future certainly is something for the present. The most familiar habits of mankind witness to this fact. Legal contracts, social understandings of every type, ambitions, anxieties, railway time-tables, are futile gestures of consciousness apart from the fact that the present bears in its own realized constitution relationships to a future beyond itself. Cut away the future, and the present collapses, emptied of its proper content. Immediate existence requires the insertion of the future in the crannies of the present.³⁵

And if, as Whitehead claims, what is always immediately experienced is a duration of finite extent containing a process, a passage, a "something going on," then any datum of imme-

³⁵ Whitehead, *Adventures of Ideas*, p. 246. Cf. also *ibid.*, pp. 247, 342.

mediate experience will necessarily reveal itself as derived from the past and passing into the future; it will exhibit an intrinsic relatedness to the future. This inescapable reference to the future is especially prominent if we restrict our attention to the immediate future, separated from the present by the span of a second or less, rather than to the more remote future of a day, a month, a year, or a century hence.

If we keep ourselves to this short-range intuition, assuredly the future is not nothing. It lives actively in its antecedent world. Each moment of experience confesses itself to be a transition between two worlds, the immediate past and the immediate future. This is the persistent delivery of common sense.³⁶

Whitehead's recognition of the reference the present makes to the future is reflected in his account of the metaphysical structure of an actual occasion. Each occasion performs its activity of self-creation in view of the fact that it itself will be succeeded by future occasions in which it will play an important formative role; and to a certain extent it performs this activity for the sake of making a valuable contribution to the experiences of those successors.³⁷

Thus any actual occasion must contain in its immediate constitution a reference to its future; and more specifically must, in some sense,prehend the future, must somehow include the future within itself as a datum of its experience.³⁸ But there are, at the time of an occasion's concrescence, no actual entities which are future relative to it.³⁹ "In the present, the future occasions, as individual realities with their measure of absolute completeness, are non-existent."⁴⁰ How, then, can he maintain that the present occasion includes the future as an immediate datum when he denies that, in the present, there are any future occasions to be included? In what sense can the present occasion prehend the future, if there are no future actualities to be prehendend?

Whitehead's answer to this question deserves to be quoted at length:

³⁶ *Ibid.*, p. 247.

³⁷ See, e.g., *ibid.*, p. 249; Whitehead, *Process and Reality*, pp. 41, 328, 424, 425.

³⁸ Whitehead, *Process and Reality*, p. 328.

³⁹ *Ibid.*, p. 328; Whitehead, *Adventures of Ideas*, pp. 249-251.

⁴⁰ *Ibid.*, p. 247. (To convert to our terminology, change "non-existent" to "non-actual.")

It is now possible to determine the sense in which the future is immanent in the present. The future is immanent in the present by reason of the fact that the present bears in its own essence the relationships which it will have to the future. It thereby includes in its essence the necessities to which the future must conform. The future is there in the present, as a general fact belonging to the nature of things. It is also there with such general determinations as it lies in the nature of the particular present to impose on the particular future which must succeed it. All this belongs to the essence of the present, and constitutes the future, as thus determined, an object for prehension in the subjective immediacy of the present . . . Thus the future is to the present as an object for a subject. It has an objective existence in the present. But the objective existence of the future in the present differs from the objective existence of the past in the present . . . there are no actual occasions in the future, already constituted. Thus there are no actual occasions in the future to exercise efficient causation in the present. What is objective in the present is the necessity of a future of actual occasions, and the necessity that these future actual occasions conform to the conditions inherent in the essence of the present occasion. The future belongs to the essence of present fact, and has no actuality other than the actuality of present fact. But its particular relationships to present fact are already realized in the nature of present fact.⁴¹

In other words, there are, at a given duration, *d*, no individual actual occasions which are future with respect to *d*. But there are in the constitution of the present occasion, *A*, and in the constitutions of past occasions prehended by *A*, real potentialities for the future; this means that the constitution of any future occasion, *C*, when it does become actual, will be partially determined by the nature of the occasions actual now, for *C* can only perform its own act of concrescence on the basis of the data given it from its past, and so will be what it is partly because of its inclusion of *A* and *A*'s predecessors as objective data within its own unity of experience. The constitutions of *A* and its predecessors, while not themselves future occasions, can nevertheless be considered as aspects of future occasions, since any future occasion must, to some degree, contain them as objects. Hence in prehending its own nature and the nature of its predecessors, *A* is prehending aspects of future occasions, and in so doing is related to, and inclusive of, the future to some extent; it includes some of the objects of future occasions,

⁴¹ *Ibid.*, pp. 250-251. Cf. also Whitehead, *Science and the Modern World* pp. 107, 253.

though it includes none of their 'subjective forms', none of the concrete modes of feeling with which they will receive these objects into their experience. In this way Whitehead considers himself to be able to hold both that we really, in the present, prehend the future, and that there are, as of the present duration, no determinate future actualities.

But if prehensions of the future are to take place in the manner just described, it is not enough that a present occasion, A, should simply prehend aspects of itself and its predecessors; in addition, it should prehend them as potentialities for the future, as features which will be contained in future occasions. This is what must be added to constitute them prehensions of the future. Simply to feel aspects of present and past actualities as aspects of present and past actualities, is not to prehend the future; it is to prehend the present and the past. To accomplish a prehension of the future, we have to prehend these same features as determining partially the constitution of future actual occasions: we have to prehend them as forming, or as destined to form, objects of future individual occasions. Otherwise why say we are prehending the future, instead of just the past or present?

Now in Whiteheadian terms, if an actual occasion is to prehend certain aspects, m, n, ..., of its predecessors as destined to form objects of future occasions, it must, in so doing, prehend a complex datum which contains in addition to m, n, ..., some extra element, x, which is to provide the reference to the future. The question then is: what can this extra element be? It is our contention that it can only consist of relations (part-whole or subject-object) of m, n, ..., to determinate individual future actual occasions. But before embracing this conclusion let us make sure there are no possible alternatives.

There are in Whitehead's world only two basic sorts of entities, actual occasions and eternal objects.⁴² The x in question must, then, be one or more actual occasions, or one or more eternal objects, or some complex containing both types. It might seem that it could be the eternal object, futurity, *i.e.*,

⁴² This classification corresponds roughly to the usual particular-universal dichotomy, with the major exception that, as pointed out above, an actual occasion can, like a universal, be present in many actual occasions.

the property of being in the future. On this supposition, *m*, *n*, ..., would be prehended as aspects of future actuality because they were conjoined in experience with the concept of futurity. But this would fail to account for the direct presence of the future within present experience, on the reality of which Whitehead is so insistent. It would mean that our cognition of the future is an imaginative construction out of elements from the past — not the immanence within the present of the future actuality itself. This would leave it possible, contrary to Whitehead's explicit doctrine, that the future relative to this moment would never occur; this experience would carry in its constitution no necessity for forming the immediate datum for a successor, and so it itself might be the last gasp of process. If "we conceive ourselves as related to... future by a mere effort of purely abstract imagination, devoid of direct observation of particular fact... there is no real evidence that... there will be a future. Our ignorance on this point is complete."⁴³ And this objection would hold equally against any other eternal object.

There are, of course, complexes of actual occasions and eternal objects, such as the entities which Whitehead terms "propositions." But it seems that no proposition, or any other such complex datum, could involve a reference to the future except by virtue of containing among its constituents either some such eternal object as futurity, or future actual occasions; and we have already ruled out the suitability of eternal objects for such a role. It appears, then, that the only alternative open to Whitehead is to say that *A* prehends *m*, *n*, ..., as potentialities for the future by prehending them in certain relations to future actual occasions.

And this in turn implies that *A* must prehend future actual occasions. For to prehend any term as in a certain relation to another term, is also to prehend the other term. I can only prehend San Francisco as north of Los Angeles, provided I also prehend, in some mode or other, Los Angeles.⁴⁴ I can only prehend black as darker than yellow provided yellow

⁴³ Whitehead, *Adventures of Ideas*, p. 247.

⁴⁴ This, of course, is not to say that I must be having sense perceptions of Los Angeles, or even vivid images of it, or be prehending it in any other special mode. It is only to say that I must be cognitively related to it in *some* fashion if I am to prehend something else as related to it.

enters in some way into my experience as a datum. Analogously A can onlyprehend *m*, *n*, ..., as related in certain ways to future actual occasions if it prehends the determinate future occasions to which they are related. Thus Whitehead's own account of prehensions of the future implies that any actual occasion, A, mustprehend, and so include within its nature, future actual occasions. For according to that account A prehends the future by prehending aspects of its predecessors — as potentialities for the future. But for Whitehead this can only mean that A prehends those aspects as related to future actual occasions; and this in turn implies that A prehends those future occasions. Whitehead can, by the terms of his philosophy, admit any reference to the future only if he admits that every actual occasion includes the whole of future actuality, as well as the whole of past actuality, within its experience.⁴⁵

The same sort of considerations will show that Whitehead is unable, on his principles, to exclude the contemporaries of A from inclusion as data within its experiential unity. Again there are certain relations which we must, if our philosophy is to be adequate, admit to hold among contemporaries; *e.g.*, spatial relations. If two actual occasions, A and D, both perform their concrescence in the same duration, they must occur in different spatial regions, and so stand in certain spatial relations to each other. And on Whiteheadian principles these relations must be prehensions of A by D, or of D by A, or both. Again Whitehead tries to give a Pickwickian interpretation of this fact by construing A's prehension of D as A's prehensions of certain aspects of its predecessors which must also be aspects

⁴⁵ Why the "whole of future actuality?" Doesn't Whitehead only insist that the *immediate* future is immanent in present experience? But any actual occasion, A, is related in some way (at least by similarity and difference) to every actuality in its future; and if we are going to admit that A directly prehends some determinate individual occasions in its future, there seems to be no reason for refusing to interpret all relations of A to future occasions as direct prehensions of those occasions. Moreover it can be easily shown that on Whiteheadian principles the presence in A of its immediate successors will involve the presence of the totality of future process. For these immediate successors likewise contain *their* immediate successors, and they in turn theirs, *ad infinitum*. The relation of containing being transitive, this means that A must contain all its successors without exception. This demonstration does presuppose, contrary to Whitehead, that if A prehends B, it prehends B in its complete nature; but it is shown below (pp. 556-557) that Whitehead must accept this principle.

of D, since these same predecessors are likewise prehended by D. But this attempt fails for a reason precisely analogous to that which we adduced in the case of the future. A can onlyprehend the features in question as aspects of D, if it prehends D as a term in these relations. And so, once more, the explanation presupposes that which it was to explain away.

If our argument thus far has been sound, we have seen that the temporal restriction which Whitehead would place on the mutual immanence of actual occasions is untenable in the context of his own system.⁴⁶ On the Whiteheadian principle that every relation enjoyed by an actual occasion is an internal relation (more specifically, a prehension of the other relatum, which entails the presence of that object prehended within its constitution), we cannot account for the relations that undoubtedly do hold between actualities without asserting that every actual occasion contains within its experience all actual occasions — past, present, and future; and this implies that all actual occasions are subject to at least one unity of experience in which they are all contained. This means that Whitehead is unable to avoid in such a fashion the monistic conclusion to which he seems driven by his Principle of Internal Relatedness.

Granted that any actual occasion must include every other occasion without temporal restriction, there is still another feature of Whitehead's account of the inter-relations of actual entities which would prevent any actual occasion from being absolutely all-inclusive. We may term this feature "the abstractness of objectification." According to the philosophy of organism, a given actual occasion, A, does notprehend the total nature of each of its objects, but only a part of the nature of each. This abstractness in prehension is "required by the categoreal conditions for compatible synthesis in the novel unity."⁴⁷ If the complete detail of each actuality in the datum were prehended there would be numerous elements which would be mutually incompatible for joint inclusion within an aesthetically harmonious synthesis.

⁴⁶ And since the restriction follows from the theory of the ultimate reality of time, that theory is likewise untenable on the basis of Whitehead's other principles. Indeed there are many serious external criticisms which can be, and have been, brought against the theory. But these matters lie outside the province of this paper.

⁴⁷ Whitehead, *Process and Reality*, p. 364.

It is evident that this theory of the abstractness of objectification does, if tenable, provide a second line of defense against monism. By its terms, even if an actual occasion doesprehend all actualities — past, present, and future — it would notprehend every aspect of each of these actualities; although inclusive of all actualities, it would not be inclusive of the sum-total of actuality. Hence there would still be a definite sense in which there was no absolutely all-inclusive unity of experience. But this theory is incompatible with the organic unity which Whitehead ascribes to every actual occasion. Now, to say that an actual occasion is an organic unity is to say that all its component prehensions are internally inter-related; the position of each of its prehensions in the whole (i.e., its relations to the whole and to the other prehensions) enters into the essence of that prehension, so that it could not conceivably be the individual which it is without being so related to those other prehensions within that actual occasion. It belongs to the essence of each prehension to perform its particular function in that particular occasion; it could not be conceived to occupy a place in another occasion (or a different place in the same occasion) and still be the prehension which it is.

There are many passages in which Whitehead expresses this integral connection of a prehension to the total concrete context in which it occurs:

Thus the feeling would be wrongly abstracted from its own final cause. This final cause is an inherent element in the feeling, constituting the unity of that feeling. An actual entity feels as it does feel in order to be the actual entity which it is.⁴⁸

The category of subjective unity is the reason why no feeling can be abstracted from its subject. For the subject is at work in the feeling, in order that it may be the subject with that feeling. The feeling is an episode in self-production, and is referent to its aim. This aim is a certain definite unity with its companion feelings.⁴⁹

But conversely, no feeling can be abstracted either from its data, or its subject. It is essentially a feeling aiming at that subject, and motivated by that aim.⁵⁰

The only fact, then, is the actual occasion as the whole, the integrated totality of prehensions; each component prehension

⁴⁸ Whitehead, *Process and Reality*, p. 339.

⁴⁹ *Ibid.*, p. 342.

⁵⁰ *Ibid.*, p. 355.

has being only as a fragment, dependent for its individuality on its relations to the other fragments.⁵¹ An actual occasion conceived as an immediately given whole consists of prehensions which are essentially mutually sensitive as to their characters; conceived as a process of concrescence it consists of stages which are essentially referent to the final stage, the "satisfaction." Under either aspect it is an organic whole, the parts of which are each internally related to each other and to the whole.

On the basis of the above result, it is not difficult to show that any actual occasion, A, in prehending one component prehension, p, of another actual occasion, B, will thereby be prehending B in its full concreteness. For p essentially includes its relation to B as a complete totality; it is only the peculiar individual it is by standing in that relation to B. Hence toprehend p as the particular individual prehension it is, is toprehend its relation to B as a whole, including all its component prehensions in an integral unity. But A can onlyprehend p as in this relation provided itprehend the other term of the relation; *viz.*, B as a whole. Hence it can onlyprehend p at all by prehending the concrete occasion in which p is contained.⁵²

Whitehead here again has failed to find an escape from monism which can be followed consistently with the essential principles of his philosophy. Since the component prehensions of an actual occasion are essentially interrelated, a given actual occasion, A, cannot include one component prehension of another actual occasion, B, without including B in its full concreteness. We have previously seen that A must contain, to some degree, every other actual occasion without exception; but

⁵¹ *Ibid.* pp. 29, 359-360.

⁵² It might seem that this goes against our pervasive experience of being able to perceive, or know by acquaintance, partial features of other actualities, even if we can't get a full understanding of these actualities. I can certainly perceive a house without being aware of its exact atomic structure, or its chemical constitutions, or even of the nature of its macroscopic furnishings. It must be remembered, however, that prehensions are by no means restricted to conscious mentality. We can, therefore, admit that we can consciously perceive certain aspects of an actuality while not consciously attending to the others, and also hold that the above arguments show that we must at the same time be prehending in some way these other aspects.

if so, we have now seen, it must contain each of them in complete detail; it must contain the absolute fulness of actuality.

Against this conclusion Whitehead has nothing further to offer. If, as we have argued, neither of the two restrictions heretofore considered is tenable in the context of Whitehead's system, we are relentlessly driven by the logic of internal relatedness and mutual immanence to the conclusion that any given actual occasion includes within its nature every actual occasion in its full concreteness. In other words, it follows from the Principle of Internal Relatedness that there is at least one immediate unity of experience inclusive of all finite experiences.⁵³ But this is the denial of the Principle of Pluralism — the principle that actual occasions form a pluralistic set. Thus we have shown that, in spite of Whitehead's efforts to the contrary, his Principle of Internal Relatedness logically implies a monistic theory of actual occasions which is in direct contradiction to the pluralism which is so central to his system. And since one of the theories logically entails the denial of the other, they cannot both be maintained.

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⁵³ It also seems to follow, as pointed out above, that there could be only one such all-inclusive actual occasion (and hence only one actual occasion). But this implication would run into opposition from another Whiteheadian tenet, the Principle of Intensive Relevance; and the determination of the validity of this principle would require another long discussion. For our present purposes this is unnecessary, for whichever way that issue is decided it would still remain true that pluralism as here defined would be abandoned.