

## THE JOURNAL OF PHILOSOPHY

## WHITEHEAD'S DENIAL OF SIMPLE LOCATION

ONE of the most important features of Whitehead's *Science and the Modern World* is a vigorous critique of what the author calls "the fallacy of simple location." This expression, due no doubt in part to its catchy phrasing, was quickly taken up by the philosophical public; but unfortunately this widespread reception was not accompanied by an equally widespread grasp of Whitehead's meaning. In expositions and criticisms of Whitehead's philosophy one can find a wealth of divergent interpretations of the phrase. The doctrine of simple location is sometimes interpreted as an absolute theory of space-time,<sup>1</sup> sometimes as the restriction of a particular natural entity to one unique space-time region,<sup>2</sup> sometimes as the denial that the space-time relations of a particular are essential or intrinsic to it.<sup>3</sup> And in contradistinction to all these versions, it is sometimes held that Whitehead's denial of simple location is conceived as applying not to particulars at all, but to universals.<sup>4</sup> This confusion reaches its climax in Chapter V

<sup>1</sup> "But the initial statement of the meaning of 'simple location' . . . shows that the 'fallacy' lay in the ascription of an absolute position in Space and Time to a bit of matter without reference to other regions of Space and Time." (Dorothy M. Emmet, *Whitehead's Philosophy of Organism*, London: Macmillan, 1932, p. 176, fn. 3.) Cf. R. Das, *The Philosophy of Whitehead* (London: James Clarke & Co., 1938), p. 29.

<sup>2</sup> "These prehended occasions have their 'location' in space and time, and the prehending occasion also has its location. And the denial of 'simple location' is the denial of the exclusiveness of these several locations." (E. B. McGilvary, "Space-Time, Simple Location, and Prehension," in Paul A. Schilpp, ed., *The Philosophy of Alfred North Whitehead*, Evanston and Chicago: Northwestern University, 1941, p. 230.) Cf. Joseph Needham, "A Biologist's View of Whitehead's Philosophy," *ibid.*, p. 261.

<sup>3</sup> "In fact, the assertion of 'significance' and the denial of 'simple location' are one and the same thing in Whitehead." (Victor Lowe, "Whitehead's Philosophical Development," *ibid.*, p. 95.) The doctrine of 'significance' asserts that the spatio-temporal relations of an event are intrinsic to it, so that it inherently contains a reference beyond itself, via those relations, to all other events.

<sup>4</sup> ". . . it seems to me that the real point of Dr. Whitehead's criticism of simple location is that it is events, not objects, that have simple location." (R. B. Braithwaite, Review of *Science and the Modern World*, in *Mind*, n.s., XXXV, p. 493.)

of Lovejoy's *Revolt Against Dualism*,<sup>5</sup> when Professor Lovejoy purports to find seven different senses of "simple location," a list including all the variants so far cited, plus a few of his own. It is not difficult to see that Lovejoy is playing Whitehead's imprecision for a little more than it is worth.<sup>6</sup> But it must be confessed that the philosopher himself is not without some responsibility for this situation; for on the basis of a superficial reading of his rather ambiguous remarks on this subject, it is not easy to frame a clear notion of his meaning. Such being the case, an elucidation of the exact meaning which Whitehead attaches to the phrase, based on a careful study of his own words in the light of the philosophic context in which they occur, would not be without value for the study of Whitehead's thought.

In *Science and the Modern World* Whitehead introduces his discussion of simple location with the following definition:

By simple location I mean one major characteristic which refers equally both to space and to time . . . The characteristic common both to space and time is that material can be said to be *here* in space and *here* in time, or *here* in space-time, in a perfectly definite sense which does not require for its explanation any reference to other regions of space-time.<sup>7</sup>

At first sight it would seem that by the doctrine of simple location Whitehead means simply an absolute theory of space-time, whereas by the denial of simple location is intended a relational theory of space-time. For we can only locate a bit of material,  $m$ , in a given region,  $x$ , without thereby having to refer to the relations of  $m$  to other bits of material located in other regions, provided that the location of  $m$  in  $x$  is a fact which is not constituted by the spatio-temporal relations of  $m$  to other bits of matter, but is rather something other than and prior to these relations, viz., the occupancy, on the part of  $m$ , of a certain region of space-time,  $x$ ; in other words, this is possible only if there is an absolute space-time in which matter is located. It is only if there is such an absolute space-time, which has some sort of being independent of the matter which is "in" it, that we can mean anything by  $m$ 's being located in  $x$  other than  $m$ 's having certain spatial relations to other particles. Therefore, to

<sup>5</sup> Arthur O. Lovejoy, *The Revolt Against Dualism* (New York: W. W. Norton, 1930).

<sup>6</sup> This is indicated by the fact that he supports only two of his seven senses by direct quotations from Whitehead in which the phrase in question is used. What he has done is to take seven different theories, some of which are actually maintained by Whitehead, and lump them all together, without any apparent warrant for doing so, under the title "denial of simple location."

<sup>7</sup> Alfred North Whitehead, *Science and the Modern World* (New York: Macmillan, 1925), p. 72.

say that we can truly speak of the location of a material particle in space-time without referring to its spatio-temporal relations to other particles is to affirm an absolute theory of space-time. And the denial of this position—i.e., the assertion that we can only specify a location for  $m$  by giving  $m$ 's spatio-temporal relations to other particles—would be equivalent to a relational theory of space-time.

In reopening the discussion in the next chapter, Whitehead gives another definition which seems to have the same purport.

To say that a bit of matter has *simple location* means that, in expressing its spatio-temporal relations, it is adequate to state that it is where it is, in a definite finite region of space, and throughout a definite finite duration of time, apart from any essential reference of the relations of that bit of matter to other regions of space and to other durations of time.<sup>8</sup>

Again it seems that if we can give the spatio-temporal status of a bit of matter apart from any essential reference to other regions of space and other durations, it can only be because its spatio-temporal status is not essentially bound up with its spatio-temporal relations to other entities. And in asserting this possibility, we are asserting an absolute theory of space-time.

But the sentences immediately following the passage first quoted give the lie to this seemingly obvious interpretation of Whitehead's meaning.

Curiously enough this character of simple location holds whether we look on a region of space-time as determined absolutely or relatively. For if a region is merely a way of indicating a certain set of relations to other entities, then this characteristic, which I call simple location, is that material can be said to have just these relations of position to the other entities without requiring for its explanation any reference to other regions constituted by analogous relations of position to the same entities. In fact, as soon as you have settled, however you do settle, what you mean by a definite place in space-time, you can adequately state the relation of a particular material body to space-time by saying that it is just there, in that place; and, so far as simple location is concerned, there is nothing more to be said on the subject.<sup>9</sup>

This throws a completely new light on the matter. The key sentence in this passage is the last one: Whatever you mean by a definite spatio-temporal location, whether you mean a chunk of absolute space-time, or a set of spatio-temporal relations, "you can adequately state the relation of a particular material body to space-time by saying that it is *just there, in that place; and, so far as simple location is concerned, there is nothing more to be said on the subject*."

<sup>8</sup> *Ibid.*, p. 84.

<sup>9</sup> *Ibid.*, p. 72. Cf. also *ibid.*, p. 84, where the second definition quoted above is followed by a similar remark.

*subject.*" Thus what a theory of simple location holds is not that a spatio-temporal location can be specified without mentioning relations to other spatio-temporal locations; but that however we specify a definite spatio-temporal region, a bit of matter (or an event, or whatever else our natural unit happens to be) can be said to be just in this region and in no other. We are thus to interpret the "reference" in the initial definition as meaning not a *mention* of other spatio-temporal regions, but rather a "reference" of the bit of matter itself to other spatio-temporal regions—i.e., a location of the body in other regions as well as the one in question. To hold a theory of simple location is not to deny that in locating the spatio-temporal region of a natural entity, it might be necessary to specify spatio-temporal relations to other regions; but it is to deny that once the region is located, the natural entity in question can itself be "referred" to (or located in) other regions. Thus "this concept of simple location is independent of the controversy between the absolutist and relativist views of space or of time."<sup>10</sup> On the absolutist theory, to occupy a region of space-time means to have a certain relation to a part of an independently existing entity, viz., space-time; on the relativist theory, to occupy a region of space-time means to have a certain set of spatio-temporal relations to other entities which occupy (in the relational sense) other spatio-temporal regions. But on either theory simple location is expressible. On the absolutist theory it is expressed by saying that the natural entity in question, *m*, does not have an analogous relation of occupancy to any different spatio-temporal region. On the relativist theory, it is expressed by saying that *m* does not also have any other complete set of spatio-temporal relations to other natural entities. Thus contrary to first appearances, the doctrine of simple location does not express an absolute, as opposed to a relativist, theory of space-time. It asserts, not that a natural entity occupies a spatio-temporal region independently of any relations it might have to other regions or the occupants thereof, but rather that it occupies this spatio-temporal region to the exclusion of *occupying* any other. The fallacy of simple location, then, could have been more unequivocally termed "the fallacy of *single* location," and its denial could then have been called "the theory of *multiple* location."

This interpretation is confirmed by an examination of the criticisms which Whitehead goes on to make of the concept of simple location, and the alternatives which he would substitute for it. In Chapter IV of *Science and the Modern World* Whitehead sketches

<sup>10</sup> *Ibid.*, p. 84.

a scheme of thought which would involve the denial of simple location. For the theory that nature consists of material particles, simply located in space and time, we are to substitute the notion of the realization of a natural entity as "a gathering of things into the unity of a prehension; . . . . This unity of a prehension defines itself as a *here* and a *now*, and the things so gathered into the grasped unity have essential reference to other places and other times." In this scheme "the idea of simple location has gone. The things which are grasped into a realised unity, here and now, are not the castle, the cloud, and the planet simply in themselves; but they are the castle, the cloud, and the planet from the standpoint, in space and time, of the prehensive unification. In other words, it is the perspective of the castle over there from the standpoint of the unification here."<sup>11</sup> Thus if we accept this view of nature as made up of unities of prehension, we give up simple location. The components of such a prehensive unity are not simply located at the region of prehension, nor simply located at their region of origin, but, *qua* involved in that prehension, they are at both places. They are at their point of origin, *from the standpoint of* the prehensive region; or they are at the prehensive region *with the mode of location at* their place of origin. Hence they are, in somewhat different senses, at both places, and are at neither exclusively. *And if any entity is involved as component in many prehensive unifications, it will correspondingly have many locations.* The following quotation also gives the same picture of what results from the denial of simple location.

My theory involves the entire abandonment of the notion that simple location is the primary way in which things are involved in space-time. In a certain sense, everything is everywhere . . . in every other location. Thus every spatio-temporal standpoint mirrors the world.<sup>12</sup>

The effect of these passages is to confirm our interpretation of "simple location" as meaning single location. For if to abandon the theory is to hold that the same event is in many places, then by implication the theory itself holds that an event can only be in one place.

A second confirmation for our interpretation can be found in the fact that if the denial of simple location is so interpreted one can understand why Whitehead considered it to be of such central importance in his philosophy. For one of the central contentions of Whitehead's metaphysical writings is the "mutual immanence" of

<sup>11</sup> *Ibid.*, pp. 101-102.

<sup>12</sup> *Ibid.*, p. 133. See also Alfred North Whitehead, *Process and Reality* (New York: Macmillan, 1929), p. 208.

all actualities. The particular events which make up the world are not "separate and unmixed," each isolated from its fellows in its own spatio-temporal bounds, but are in some sense contained in each other. In fact, every actuality is ingredient, to some extent, in every other actuality. The following are two of the many passages in which Whitehead sets forth this conviction.

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.<sup>13</sup>

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.<sup>14</sup>

It is clear that the denial of simple location as here interpreted is simply this Principle of Mutual Immanence applied to actualities insofar as they occupy space-time. In other words, it is the consequence of that principle for the structure of space-time. For if a given actual entity, A, is included in every other actual entity and every actual entity occupies a region of space-time, then it follows that A is present, to some degree, in every space-time region. It occupies primarily the region in which it "happens," but it is present to some extent wherever it is included as a component in another actual entity. And this means, according to the Principle of Mutual Immanence, that it is present in *every* space-time region.

Every actual entity in its relationship to other actual entities is in this sense somewhere in the continuum, and arises out of the data provided by this standpoint. But in another sense it is everywhere throughout the continuum; for its constitution includes . . . the continuum; also the potential objectifications of itself contribute to the real potentialities whose solidarity the continuum expresses. Thus the continuum is present in each actual entity, and each actual entity pervades the continuum.<sup>15</sup>

Our interpretation, then, in addition to conforming to the passages in which Whitehead explicitly uses the phrase in question, makes intelligible the central position which the denial of simple location holds in the Whiteheadian scheme of thought.

Our exegesis cannot, however, be considered complete until we have specified to some extent the sense in which Whitehead holds that an event is multiply located. It might be suspected that Whitehead is covertly introducing an ambiguity into the word "in," that when he speaks of an event, A, being *in* the region where it occurs he is using the word in the ordinary sense, but

<sup>13</sup> *Process and Reality*, p. 340.

<sup>14</sup> *Ibid.*, p. 79.

<sup>15</sup> *Ibid.*, pp. 104-105.

that when he speaks of A being in other regions (or other events) he means what would be more ordinarily expressed by saying that A has causal influence on those regions or those events. If such were the case, the denial of simple location would only be, in a current phrase, a "subtly disguised attack on ordinary language"; Whitehead's thesis would reduce to the proposal that we use the word "in" wherever the phrase "has causal influence on" is ordinarily used. However, a brief review of the concrete interpretation given to mutual immanence in the Whiteheadian philosophy will show that this is not the case.

The "actual occasions" of which Whitehead's world consists are conceived as momentary acts of experience,<sup>16</sup> each of which has other actual occasions as the immediate data of its feeling; each actual occasion experiences other particular events not through some "representative idea" or subjective modification of itself, but directly, without mediation.<sup>17</sup> Thus a given actual occasion contains other actual occasions as parts in the sense in which an immediate experience contains its data as parts.<sup>18</sup> And in Whitehead's view, this is a quite literal sense of "part." An actual occasion is conceived by Whitehead to consist of a certain synthesis, or "mode of togetherness" of its data,<sup>19</sup> a "way of housing the universe."<sup>20</sup> Anything which is immediately felt by an experiential event is thereby literally an ingredient of that event.<sup>21</sup> Now in Whitehead's philosophy it is actual occasions—immediate unities of experience—which in the fundamental sense occupy, or are located in, spatio-temporal regions; it is the perspective relations between actual occasions which constitute the spatio-temporal continuum.<sup>22</sup> Therefore the data of an actual occasion, as parts of that actual occasion, will be located in its spatio-temporal region, in basically this same fundamental sense. And since a given actual occasion will be immediately felt or "prehended" by many actual occasions, it will form part of many such experiences, and so will literally be located in many space-time regions.

<sup>16</sup> *Ibid.*, pp. 65, 124.

<sup>17</sup> *Ibid.*, pp. 351, 78, 230, 363.

<sup>18</sup> *Ibid.*, pp. 29, 81, 249, 252. If it seems difficult to conceive a datum as "part" of an experience, let us remember that these data (other actual occasions) are themselves acts of experience; so that what is involved is the phenomenon of one feeling forming part of a more inclusive feeling, a phenomenon which receives daily illustration in our own experience.

<sup>19</sup> *Ibid.*, pp. 32, 321; *Science and the Modern World*, pp. 137, 251.

<sup>20</sup> *Process and Reality*, p. 124.

<sup>21</sup> *Science and the Modern World*, p. 38.

<sup>22</sup> *Ibid.*, pp. 104-106; *Process and Reality*, p. 118.

It is true that the sense in which an actual occasion is present in the region where it "occurs," is distinguishable from the sense in which it is present in a region where another actual occasion, for which it is a datum, occurs. In the first case it is present in the mode of "subjective immediacy" or "formal reality"; it is present as an act of receiving data from without and synthesizing them into an immediate unity of feeling. In this mode an actual occasion is singly located; it can *happen* as a complete, self-enclosed whole only once. In the second case it is present in the mode of "objective immortality" or "objective reality"; it is present in its status as a datum for other unities of feeling. In this mode it is multiply located, for it can play the part of datum in many actual occasions, occupying many space-time regions.<sup>23</sup> But the point is that, since the immediate data of an experience are, in Whitehead's world, literally parts of that experience, these senses are not fundamentally distinct; they differ only as whole and part. In its subjective immediacy a given actual occasion, A, occupies a space-time region as an integral whole, a complete unity of feeling which, as of that moment, is in no immediately felt unity with any entities beyond its bounds. Whereas in its objective immortality A is always present in a region as one partial component of a felt unity among others. In other words, in the one case A occupies completely an atomic space-time region; in the other cases it occupies only part of such a region. But this is not a fundamental difference; just as the sense in which a musical phrase is in space-time, and the sense in which the first note of the phrase is in space-time, are not fundamentally different senses. The same intuitive sense of "in" is applied in both cases; in the former to a whole, in the latter to a part. Therefore Whitehead, in insisting that an event must be conceived of as "in" many space-time regions, is not covertly using "in" in two widely different senses. He is consistently using the term in the only fundamental sense which can be assigned to it in the context of his philosophy, i.e., the ordinary intuitive sense of "in" suitably interpreted for the use in a metaphysics of experiential events.

We are now in a position to give a more precise general formulation of the fallacy of simple location. It was pointed out above (pp. 715-716) that the "fallacy" consists in holding that a natural entity could be in only one space-time region. We can now, in the light of our further discussion, make this more explicit as follows. A philosopher commits the fallacy of simple location if and only if

<sup>23</sup> For the distinction between these two modes of being see *Process and Reality*, pp. 34, 38, 44, 71, 89, 335-336.

he holds that, in whatever sense of spatio-temporal location is fundamental in his philosophy, a spatio-temporal entity can be located in only one region of space-time. And, conversely, a philosopher avoids the "fallacy" if and only if he holds that, in his basic sense of location, a spatio-temporal entity can be located in more than one space-time region.

We should not jump to the conclusion that a philosopher could only escape the fallacy of simple location by embracing Whitehead's account of the world as consisting of experiential events enjoying immediate feelings of each other. The crucial feature of Whitehead's relation of immediate experience, by virtue of which it rules out simple location, is the way in which it necessitates the inclusion of one particular event within another. Therefore any other relation which would do the same job—which would break down the hard and fast boundaries between spatio-temporal particulars and enable them literally to form parts of each other—would serve equally well for avoiding the "fallacy." It does seem difficult to find another such relation which might plausibly be supposed to hold universally, but we cannot say *a priori* that this is impossible.

If the correctness of our interpretation has been confirmed by the considerations herein adduced, the task of evaluating the success of Whitehead's attack on simple location can now be undertaken with increased understanding of the problems involved.

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#### HOW TO RESOLVE DISAGREEMENT IN "ATTITUDE"

IT is more than a generation since the theory of the applicability of scientific method to the domain of morals and conduct was a significant discovery. This discovery was an articulation of a practice already in progress, but it helped to make the extension of scientific method more deliberate. When, therefore, many current ethical writers deny the scientific thesis, they might be said to be still debating the question "How is a science of value possible?" when the possibility of that science can be directly inferred from its actuality. In particular, they forego the study of the actual ways of value formation and change for which psychology and the social sciences provide rich material. A good deal of current ethical writing exhibits a relatively unsophisticated neglect or ignorance of these sciences. Such neglect cannot be excused by the pretension of only wishing to clarify the ethical language of the