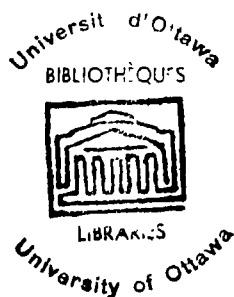


THE DOCTRINE OF UNIVERSAL RELATIVITY  
IN WHITEHEAD'S METAPHYSICS

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## DEDICATION

To my parents, William and Catherine,  
whose trust matches that of saints.

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## INTRODUCTION

The problem of this dissertation concerns the clarification and elaboration of Whitehead's doctrine of universal relativity. In Whitehead's works there are only scattered references to this doctrine as such, but its conception is his attempt to resolve the basic problem of Process and Reality, Whitehead's magnum opus. The latter is the problem of accounting for how any given entity in experience is present in other entities. The doctrine is developed mainly in terms of certain theories and categories which are formally presented in the aforementioned work. These are the category of the ultimate, the theory of internal relations, the theory of external relations, and the doctrine of process. The task in this dissertation is to show how each of these conceptions is the development of an aspect of the doctrine of universal relativity.

Whitehead himself does not deal explicitly with this problem. In Process and Reality, however, he presents a formal and detailed attempt to resolve the question of how a given entity in experience is present in other entities. He refers incidentally to the notion of universal relativity in this attempt. Nevertheless, he develops this doctrine in terms of other categories and concepts. The present dissertation, then, is a study of these categories and concepts as aspects of the doctrine of universal relativity. Hence, the concern here,

is mainly with Process and Reality. Whitehead's other works, however, are not to be ignored. Certain details concerning the notion of relativity are clarified by The Concept of Nature, and the early essays on the theory of relativity, namely, "The Philosophical Aspects of the Principle of Relativity," "The Idealistic Interpretation of Einstein's Theory," and "Uniformity and Contingency." Also, Science and the Modern World is indispensable in any consideration of Whitehead's theory of external relations. Adventures of Ideas is helpful in understanding a number of details considered in this dissertation. All of Whitehead's works, however, are necessary for a full understanding and appreciation of the significance of the doctrine of universal relativity.

The critics of Whitehead's philosophy, so far as this author can determine, do not deal with the problem of the clarification and elaboration of the doctrine of universal relativity in a direct or detailed fashion. Nevertheless, there are some essays in the critical literature which are particularly helpful in dealing with the problem at hand. Professor Garland's essay on "The Ultimacy of Creativity," for example, attempts to clarify the role of creativity in Whitehead's metaphysics. This is an important consideration since creativity is the central notion in the category of the ultimate, which is the most general statement of the doctrine of universal relativity. Also helpful in this regard is an

unpublished doctoral dissertation called "The Function of Creativity in the Metaphysics of Whitehead," by Reverend W. W. Stokes. Of special interest in regard to the concept of relativity in Whitehead's works is A. E. Murphy's "Objective Relativism in Dewey and Whitehead," and Professor Alston's problematic essay titled, "Internal Relatedness and Pluralism in Whitehead." Also of importance here is Leclerc's brief but incisive rejoinder to Alston, "Internal Relatedness in Whitehead: A Rejoinder." Although none of these works deal explicitly with the doctrine of universal relativity, they are especially helpful in elucidating certain aspects of that doctrine. The other works listed in the bibliography of this dissertation are necessary for a more complete understanding of Whitehead's metaphysics generally, and some of the technical terms involved in its elaboration.

Briefly stated, the working hypothesis of this dissertation is that the doctrine of universal relativity is expressed in its most general form in the category of the ultimate, and that this category is analysed in terms of the theory of internal relations, the theory of external relations, and the doctrine of process, which involves the interrelation of the two aforementioned theories. This hypothesis may be developed in the following way.

The category of the ultimate is a general statement of the ultimate character of experience which is initially

expressed in terms of the 'one,' the 'many,' and 'creativity.' Each of these terms refers to a distinct form of relatedness, while the term 'ultimate' conveys the notion of universality in the sense of 'present in each and every individual instance of experience.' Hence, the category of the ultimate expresses the universality of the relatedness of experience.

The theory of internal relations constitutes the detailed analysis of the notion of the 'one,' the idea of singularity, as it is presented in the category of the ultimate. This theory is developed in terms of the notion of the individual instance of experience, the actual entity, as involving an internal conjunction or synthesis of relations to other entities--entities experienced as data by the given entity. This synthesis is what Whitehead calls the concrescence of prehensions. The theory of internal relations constitutes the analysis of a fundamental principle of experience, namely, the ontological principle. It is the principle of the singularity or individuality of experience.

The theory of external relations is the detailed analysis of the notion of the 'many,' the concept of plurality, as it is presented in the category of the ultimate. It is developed in terms of the theory of objectification whereby an entity is conceived as generally related to another in virtue of those features which generally distinguish it from other entities, namely, its objective character. This theory amounts to the analysis of another fundamental principle

of experience, namely, the principle of relativity. It is also the principle of the objective diversity in experience.

The doctrine of process is the detailed analysis of the notion 'creativity' in the category of the ultimate. Creativity refers to the advance from the 'one' to the 'many' thereby producing a new 'one.' It is analysed in terms of the interrelation of the theory of internal relations and the theory of external relations. The doctrine of process constitutes an analysis of what Whitehead refers to as the principle of creativity, the most fundamental principle of experience, one which involves the interrelation of the ontological principle and the principle of relativity. This completes the development of the category of the ultimate and the analysis of the doctrine of universal relativity.

The originality of this dissertation consists, it is hoped, in the presentation of the doctrine of universal relativity in terms of the category of the ultimate, and, in the further clarification and elaboration of that doctrine in terms of the theory of internal relations, the theory of external relations, and the doctrine of process. Whitehead himself does not explicitly make the connections between the doctrine of universal relativity and the various categories and theories mentioned above, but he refers to that doctrine as central in his attempt to resolve the basic question of Process and Reality. He leaves us with the problem, in other

words, of determining the meaning of the phrase 'universal relativity' in relation to the categories in the formal scheme of his metaphysics. The task in this dissertation is to discuss this problem in the hope of opening up another avenue of accessibility to Whitehead's metaphysics.

The method employed herein is one which, hopefully, assimilates that of Whitehead himself, namely, the method of the Working Hypothesis. Basically, it consists in the presentation of a theory which is tentatively held and in relation to which textual evidence is selected. The validity of this theory is determined by its adequacy--that is, by its capacity for the coherent interpretation or re-interpretation of Whitehead's metaphysics. The working hypothesis of the present dissertation was presented above. The evidence is adduced below.

Finally, it should be noted that Whitehead, supremely proficient though he is in the abstract and exact science of mathematics, does not believe that the full, concrete nature of experience can be grasped solely through abstract reasoning. The process of abstraction is limited in what it can convey--the selection of items of experience which is necessary for analysis involves the omission of details that affect the nature of what is being considered. This is not an anti-intellectualist stand. Whitehead explicitly rejects such a point of view. His own standpoint simply emphasises the need

to be careful with abstract concepts in the analysis of concrete experience. For this reason he stresses the organicism or interrelatedness of the categories and theories in his metaphysics. The categories of creativity, God, actual entity, eternal object, etc., are all interrelated. The theories of objectification, concrescence, internal relations, are all interrelated. Selection and abstraction are necessary for understanding, but they involve the danger of omission of important details. Hence, in regard to this dissertation it should be understood that the division between the theory of internal relations and the theory of external relations is an artificial one, a division which is necessary in order to explain the theories in their distinctiveness. But they are ultimately interrelated in the final analysis of the one creative process which, de facto, is undivided. This is what Whitehead's doctrine of process is intended to demonstrate, and what chapter V of this dissertation attempts to clarify and emphasise.

## CHAPTER I

### WHITEHEAD AND THE METAPHYSICAL QUEST

This chapter presents a background in relation to which the significance of the doctrine of universal relativity may be understood. It consists of an outline of (1) the fundamental problem, (2) the method, and (3) the basic structural elements of Whitehead's metaphysics. These considerations are preliminary to the main discussion, the aim of which is the elaboration and clarification of the doctrine of universal relativity.

#### 1. The Metaphysical Problem

The present section involves discussion of the ontological problem Whitehead struggles with in Process and Reality. As Professor Leclerc has shown, the classic statement of the problem may be found in Aristotle. It is the question of what constitutes 'a complete fact' or 'what that is which is in this sense.' Leclerc explains how Aristotle attempts to answer this question with his doctrine of 'primary substance.' But he seems to be incorrect in his contention that Whitehead tries to resolve the same difficulty with his theory of the 'actual entity.'

In Adventures of Ideas, Whitehead states: "The final problem is to conceive a complete (παντελής) fact. We can

only form such a conception in terms of fundamental notions concerning the nature of reality."<sup>1</sup> Professor Leclerc conceives, rightly it seems, that this is a formal statement of the fundamental metaphysical problem with which Whitehead is struggling, and that his mature view of the 'complete fact' is presented in Process and Reality. Leclerc states that "in declaring that the final problem is to conceive a complete (πικντελής) fact Whitehead is placing himself fully in the great philosophical tradition."<sup>2</sup> For Whitehead means here "what Aristotle meant in declaring the problem to be: 'what that is which is in this sense.'"<sup>3</sup> Leclerc is referring here to the following passage in Aristotle's "Metaphysics:"

And indeed the question which was raised of old and is raised now and always, and is always the subject of doubt, viz. What being is, is just the question, what is substance? For it is this that some assert to be one, others more than one, and that some assert to be limited in number, others unlimited. And so we also must consider chiefly and primarily and almost exclusively what that is which is in this sense.<sup>4</sup>

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<sup>1</sup>A. N. Whitehead, Adventures of Ideas (New York: Free Press, 1967), p. 158. In the remainder of the present undertaking this book will be referred to as AI.

<sup>2</sup>I. Leclerc, Whitehead's Metaphysics: An Introductory Exposition (New York: The Macmillan Company, 1958), p. 17.

<sup>3</sup>Leclerc, Whitehead's Metaphysics..., p. 17.

<sup>4</sup>Aristotle, "Metaphysics," trans. Sir David Ross, The Basic Works of Aristotle, ed. R. McKeon (New York: Random House, 1971), II, 1, 1028b, pp. 783-84.

Professor Leclerc contends that Whitehead is in complete agreement with Aristotle as to the nature of the final metaphysical question: "To them both it is the problem of determining the nature of 'that' which is the 'complete existent,' the 'fully existent entity.'"<sup>5</sup> Both philosophers, then, are concerned with the problem of conceiving 'a complete fact' or 'what that is which is in this sense.'

In reference to Aristotle's use of the term 'is,' Professor Leclerc points out that it is intended to convey the notion of being or existence in the primary and full sense. He explains that Aristotle's concept of 'substance' (οὐσία) is an attempt to capture the fullness of existence by combining "the abstractness of 'being' expressed by the word 'beingness,' with the concreteness of a particular individual."<sup>6</sup> Substance is Aristotle's term for the 'particular entity' or 'individual thing' which exists in the fullest and most complete sense of the word 'exist.'

Leclerc contends that Whitehead's notion of the 'actual entity' is equivalent to Aristotle's 'primary substance.'<sup>7</sup> That is, the actual entity as it is presented in Process and Reality is but Whitehead's term for what Leclerc conceives to be a 'particular entity' or

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<sup>5</sup>Leclerc, Whitehead's Metaphysics..., p. 20.

<sup>6</sup>Leclerc, Whitehead's Metaphysics..., p. 18.

<sup>7</sup>Leclerc, Whitehead's Metaphysics..., p. 23.

'individual thing.'<sup>8</sup> But the theory of the actual entity, according to Leclerc, is the means by which Whitehead attempts to indicate the notion of a 'complete fact.'<sup>9</sup> According to this view, Whitehead tries to resolve the fundamental metaphysical problem with his theory of the actual entity which is understood to be the equivalent of Aristotle's doctrine of primary substance.

The ontological principle is the formal statement in Whitehead's metaphysical scheme expressing a fundamental feature of experience in terms of the notion of the actual entity or actual occasion. On at least one occasion, Whitehead refers to it as "the general Aristotelian principle [which maintains] that apart from things that are actual, there is nothing--nothing either in fact or in efficacy."<sup>10</sup> The 'things that are actual,' according to Leclerc, are 'particular things.' Hence, the ontological principle is concerned with the being of the actual entity understood in the sense of 'particular thing' or (οὐσία). In Leclerc's view "Whitehead speaks of the ontological principle meaning thereby that it is the ultimate principle concerning 'being' or 'existence;' it constitutes the

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<sup>8</sup>Leclerc, Whitehead's Metaphysics..., p. 21.

<sup>9</sup>Leclerc, Whitehead's Metaphysics..., p. 20.

<sup>10</sup>A. N. Whitehead, Process and Reality (New York: Free Press, 1969), p. 53. In the remainder of the present undertaking this book will be referred to as PR.

fundamental assertion about 'existence' or 'being.'"<sup>11</sup> In other words, according to this view, the ontological principle is the ultimate principle in Whitehead's ontology, the ultimate statement of what being or existence is; it is the ultimate assertion that being is a 'particular thing' or substance.

Professor Leclerc's comparison of Whitehead and Aristotle in respect to the statement of the basic metaphysical problem is a valuable one, and seems to be correct. Whitehead's problem concerning what constitutes the 'complete fact' does indeed seem to be equivalent to Aristotle's problem of 'what that is which is in this sense.' Aristotle attempts to resolve this question with his notion of substance. But Professor Leclerc seems to be incorrect in his assessment of how Whitehead tries to resolve the same problem. Leclerc's position may be questioned on two counts: In respect to (1) the contention that the notion of the 'complete fact' is elucidated by the theory of the actual entity, understood as equivalent to the doctrine of the 'particular thing,' or Aristotle's primary substance; (2) the specification of the ultimacy of the ontological principle, understood as the ultimate assertion concerning 'being' or 'existence.' The remainder of this section consists in the elaboration of this two-fold objection to Professor Leclerc's position.

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<sup>11</sup>Leclerc, Whitehead's Metaphysics..., p. 23.

Leclerc discusses Aristotle's notion of substance in a way which Whitehead himself seems to understand it. And this is drawn (at least by Whitehead)<sup>12</sup> from Sir David Ross' commentary on Aristotle, in which the author states that "primary substance is 'neither asserted of a subject, nor present in a subject' 'Asserted of a subject' here refers to the relation of universal to particular, 'present in a subject' to that of an attribute to its possessor."<sup>13</sup> In other words, primary substance is a 'particular' which cannot be asserted of, or attributed to a subject. It is "being which is in the strictest and fullest sense is."<sup>14</sup> Primary substance then is the 'particular existent' which exists in the fullest and most complete sense of the term 'exist.' It is a substantial and unchangeable, individual thing,<sup>15</sup> which as Leclerc states, exists 'in and of itself.'<sup>16</sup> Whitehead, in reference to seventeenth and eighteenth century philosophy sums this up in the following way:

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<sup>12</sup>See PR, p. 64.

<sup>13</sup>Sir David Ross, Aristotle (London: Methuen, 1968), p. 23.

<sup>14</sup>Ross, Aristotle, p. 156.

<sup>15</sup>See Ross, Aristotle, pp. 157-58.

<sup>16</sup>See Leclerc, Whitehead's Metaphysics..., p. 20.

The 'particular' is /... / conceived as being just its individual self without necessary relevance to any other particular. It answers Descartes' definition of substance: 'And when we conceive of substance, we merely conceive an existent thing which remains nothing but itself in order to exist.' This definition is a true derivative from Aristotle's definition: A primary substance is 'neither asserted of a subject nor present in a subject.'<sup>17</sup>

Whitehead understands the Aristotelian notion of primary substance, then, in terms of a 'particular existent,' which is 'neither asserted of a subject nor present in a subject,' and exists 'in and of itself.'

But Whitehead, contrary to what Professor Leclerc claims, does not elucidate the notion of the 'complete fact' merely by means of the notion of the actual entity, understood in the sense of the Aristotelian idea of a 'particular existent.' At once, Whitehead rejects the Aristotelian notion and presents an alternative:

The principle of universal relativity directly traverses Aristotle's doctrine, '(A substance) is not present in a subject.' On the contrary, according to this principle an actual entity is present in other actual entities.<sup>18</sup>

In other words, the theory of actual entities together with the doctrine of universal relativity replaces Aristotle's concept of primary substance. Although the concept of actual entity is the more basic, these two notions constitute Whitehead's attempted resolution of the basic metaphysical question of

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PR, p. 64.

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PR, p. 65.

what constitutes a 'complete fact;' or 'what that is which is in this sense:' "The philosophy of organism is mainly devoted to the task of making clear the notion of 'being present in another entity.'"<sup>19</sup> The foundation of this doctrine in the Categoreal Scheme (an outline of Whitehead's Metaphysics presented in Process and Reality) is the category of the ultimate in the context of which he specifies again his rejection of primary substance: "This Category of the Ultimate replaces Aristotle's category of 'primary substance.'"<sup>20</sup> Whitehead substitutes the category of the ultimate for the category of primary substance. The two are equivalent only in the sense in which they constitute (diverse) attempts to resolve the same fundamental metaphysical problem. But the category of the ultimate involves both the notion of the actual entity as an individual or 'particular thing,' and the notion of the interrelationship between actual entities.

In contrast to Professor Leclerc's contention that the ontological principle is the ultimate principle asserting the nature of being or existence, Whitehead in his Categoreal Scheme, presents, in separation from the ontological principle, what he calls the category of the ultimate. This category

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<sup>19</sup>PR, p. 65. Whitehead is careful to point out that this does not mean that one entity is contained simpliciter in another. How it is to be understood will be made clearer in Chapter IV.

<sup>20</sup>PR, p. 26.

expresses the principle which is "presupposed in" the more special categories, one of which is the ontological principle, category of explanation (xviii).<sup>21</sup> The principle expressed is that of creativity, which seems to be a principle in the ontological sense since it constitutes the 'character' of "ultimate matter of fact."<sup>22</sup>

Leclerc's view of the ultimacy of the ontological principle is further weakened by the fact that Whitehead presents the principle of creativity as his basic working hypothesis. As such, it postulates that the "ultimate realities are events," each of which is not merely a 'particular existent' but "a passage between two ideal termini, namely, its components in their ideal disjunctive passing into these same components in their concrete togetherness."<sup>23</sup> This is an expression of the character of what Whitehead hypothesises as ultimate fact, that ultimate ontological character which may be analysed in terms of one of two current doctrines.

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<sup>21</sup>See PR, p. 25.

<sup>22</sup>See PR, p. 25.

<sup>23</sup>AI, pp. 235-36.

One is that of the external Creator, eliciting this final togetherness out of nothing. The other doctrine is that it is a metaphysical principle belonging to the nature of things, that there is nothing in the Universe other than instances of this passage and components of these instances.<sup>24</sup>

It should be noted that the second and last statement in this quotation expresses the ontological principle. Hence, the ontological principle is involved in the analysis of the ultimate principle, namely, the creativity expressed by the category of the ultimate. This view is supported by the fact that the ontological principle is presented in the Categorical Scheme under the heading of the Categories of Explanation.

Finally, in opposition to Professor Leclerc's position regarding the ultimacy of the ontological principle, it is difficult to see why Whitehead would posit as ultimate a principle (such as the ontological principle) other than the one he uses to replace Aristotle's notion of primary substance. For the latter notion is Aristotle's ultimate resolution of the fundamental ontological question. We would expect, then, that the category of the ultimate, which Whitehead expressly substitutes for primary substance, would express the ultimate principle in his attempt at resolving the aforementioned ontological problem.

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<sup>24</sup>AI, p. 236.

## 2. The Metaphysical Method

This section deals with the method that Whitehead feels is most useful in the metaphysical pursuit. It is the method of descriptive generalization, which, at least in the way Whitehead uses it, involves the fusion of rationalism and empiricism.

Professor Leclerc seems rightly to conceive that Whitehead agrees with Aristotle as to what constitutes the metaphysical enquiry, that it is a search for 'first principles' by way of struggling with the fundamental ontological question, which is, namely, to conceive 'a complete fact' or 'what that is which is in this sense.'<sup>25</sup> This seems to be correct in so far as for both Aristotle and Whitehead, metaphysics is the attempt to attain the most universal, the most comprehensive knowledge. Aristotle thinks of it as the "highest science," referring to it as "theology,"<sup>26</sup> which deals with what is "in the highest degree universal knowledge!"<sup>27</sup> According to Whitehead, in metaphysics "the accurate expression of the final generalities," of which there can be only tentative formulations, is the "goal."<sup>28</sup>

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<sup>25</sup>See Leclerc, Whitehead's Metaphysics..., p. 29.

<sup>26</sup>See Aristotle, "Metaphysics," VI, 1, 1026a, p. 779.

<sup>27</sup>See Aristotle, "Metaphysics," I, 1, 982a-b, p. 691.

<sup>28</sup>See PR, p. 11.

The views of Aristotle and Whitehead seem to coincide, then, in respect to what they both consider to be the fundamental problem and the general aim of metaphysics.

It is in the extreme, however, to conceive with Professor Leclerc that Whitehead's metaphysics is "rationalism pursued to its limits, to its fullest extent."<sup>29</sup> The main justification for this view is that metaphysics, in Whitehead's estimation, is in search of the final 'reasons' for things, reasons which account for the nature of being or existence. This standpoint is apparently supported by Professor Lowe's statement that "in 1925 Whitehead thought of systematic metaphysics as the widest mathematics,"<sup>30</sup> which suggests that Whitehead, prior to writing Process and Reality, thought that the method of metaphysics is the method of mathematics. It is not a large step from this point of view to the one which sees "nothing of the empiricist method" in Process and Reality.<sup>31</sup>

As to mathematical method Whitehead states:

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<sup>29</sup>Leclerc, Whitehead's Metaphysics..., p. 27.

<sup>30</sup>V. Lowe, Understanding Whitehead (Baltimore: Johns Hopkins Press, 1962), pp. 280-81.

<sup>31</sup>E. W. Shahan, Whitehead's Theory of Experience (New York: King's Crown Press, 1950), p. 38.

Philosophy has been misled by the example of mathematics; and even in mathematics the statement of the ultimate logical principles is beset with difficulties, as yet insuperable. The verification of a rationalistic scheme is to be sought in its general success, and not in the peculiar certainty, or initial clarity of its first principles.<sup>32</sup>

Whitehead, co-author of one of the most important treatises in mathematical logic in our time, the Principia Mathematica, here expressly rejects the mathematical method as inappropriate to the philosophical quest. Philosophy does not begin with clear and distinct premises from which are deduced clear and distinct conclusions. He goes so far as to say that in respect to those generalities which form the basis of the special sciences "exactness is a fake."<sup>33</sup> Metaphysical conclusions are simply provisional or tentative formulations of fundamental facts of experience, not dogmatic assertions which are finally, absolutely true. "The primary method of mathematics is deduction; the primary method of philosophy is descriptive generalization."<sup>34</sup> Descriptive generalization involves the appeal to experience and an element of hypothesis.

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<sup>32</sup>PR, p. 11.

<sup>33</sup>A. N. Whitehead, "Immortality," The Interpretation of Science, ed. A. H. Johnson (Indianapolis and New York: The Bobbs-Merrill Company, 1961), p. 267.

<sup>34</sup>PR, p. 13.

As Whitehead states above "the verification of a rationalistic scheme is to be sought in its general success." This refers to its practical application, its application to experience. A philosophical scheme should, in respect to its interpretation, be applicable and adequate. "Here 'applicable' means that some items of experience are thus interpretable, and 'adequate' means that there are no items incapable of such interpretation."<sup>35</sup> The appeal to experience is fundamental to Whitehead's method in the presentation of his metaphysics in Process and Reality. In fact "the ultimate appeal is to the general consciousness of what in practice we experience."<sup>36</sup> Thus, Whitehead maintains the empirical principle in that he argues that we can deal only with what we experience and that it is to such experience which we must appeal in determining the validity of what we speculate or theorise about.<sup>37</sup>

What Whitehead means by experience, however, is not what he conceives Hume to mean by that term. According to Hume's doctrine, which Whitehead refers to as the 'sensationalist doctrine' experience at its base consists of a plurality of discrete, fundamentally separate sense-impressions of

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<sup>35</sup> PR, p. 5.

<sup>36</sup> PR, p. 20.

<sup>37</sup> See PR, p. 300, and AI, p. 223.

varying degrees of 'force and vivacity.'<sup>38</sup> Whitehead defines a sense-impression as "a particular instance of the mind's awareness of an universal,"<sup>39</sup> for example, the sensum 'grey.' There is no such thing according to the sensationalist doctrine, as experienced relatedness, no 'inseparable connection' among the sensa; there is only a mere qualitative connectedness,<sup>40</sup> a 'constant conjunction' which is 'inferred' from 'practice' or 'habit.' Yet even in respect to such ideas of relatedness as 'constant conjunction' the sensationalist doctrine is basically incoherent. For the manner of relatedness or connection is not given in any sense-impression.<sup>41</sup> In addition, according to Whitehead, this doctrine overlooks the facts: The relatedness or connectedness of experience is a fact of experience.<sup>42</sup> And this is what we begin with in the philosophical enterprise. Particularly appropriate in the present context is a remark Whitehead is said to have made concerning how we know minds other than our own: "Hang it all! Here we are. We don't go behind that; we begin with it."<sup>43</sup>

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<sup>38</sup> See Whitehead's account of his doctrine in PR, pp. 152-60.

<sup>39</sup> PR, p. 169.

<sup>40</sup> AI, p. 280.

<sup>41</sup> See PR, p. 157.

<sup>42</sup> See PR, p. 157.

<sup>43</sup> W. E. Hocking, "Whitehead as I Knew Him," Alfred North Whitehead: Essays on His Philosophy, ed. G. E. Kline (Englewood Cliffs: Prentice-Hall, 1963), p. 8.

Whitehead's notion of experience is more akin to that of William James. James considers his empiricism to be "radical" because it admits the fundamentality of relatedness in experience: "The relations that connect experiences must themselves be experienced relations, and any kind of relation experienced must be accounted as 'real' as anything else in the system."<sup>44</sup> This compares favourably with Whitehead's view that there are concrete relations in experience, that there is an "actual connectedness of the actual individual things which constitute the actual course of history."<sup>45</sup> To exemplify his point, Whitehead states:

New York lies between Boston and Philadelphia. But the connectedness of the three towns is a real particular fact on the earth's surface involving a particular part of the eastern seaboard of the United States. It is not the universal 'between.' It is a complex actual fact which, among other things, exemplifies the abstract universal 'betweenness.'<sup>46</sup>

The universal denotes a concrete relation which may be experienced.

The basic technical term that both Whitehead and James employ in expressing this basic connectedness, is 'feeling.' For example, James stipulates that "pure

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<sup>44</sup>W. James, "A World of Pure Experience," The Writings of William James, ed. J. J. McDermott (New York: Random House, Modern Library Edition, 1968), p. 195.

<sup>45</sup>AI, p. 230.

<sup>46</sup>AI, p. 230.

experience [ "... ] is but another name for feeling or sensation;"<sup>47</sup> and again that "continuities and discontinuities are absolutely coordinate matters of immediate feeling."<sup>48</sup> In Whitehead's terminology "feelings are 'vectors;' for they feel what is there (data) and transform it into what is here (emotion)."<sup>49</sup> Whatever the differences between the notions of experience of Whitehead and James, they coincide in the decisive emphasis placed on the fact of experienced connectedness.

As noted above, the method of descriptive generalization involves the appeal to experience, and an element of hypothesis. A general account of what Whitehead means by experience was given immediately above. Now we will deal with the element of hypothesis that is implied in Whitehead's notion of descriptive generalization.

Whitehead refers to this method as "an ascent from a particular fact, or from a species, to the genus exemplified."<sup>50</sup> This suggests that descriptive generalization is some form of induction, which it is, but only in a broad

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<sup>47</sup>W. James, "The Thing and Its Relations," The Writings of William James, ed. J. J. McDermott (New York: Random House, Modern Library Edition, 1968), p. 215.

<sup>48</sup>James, "The Thing and Its Relations," p. 216.

<sup>49</sup>PR, p. 105.

<sup>50</sup>AI, p. 235.

sense. For there is no strict enumeration of particular observed facts. Also, where observation fails, imagination takes over.<sup>51</sup> In addition, it should be noted that Whitehead does not conceive induction to be the derivation of general laws, but the elicitation of definite features of experience.<sup>52</sup> Descriptive generalization is "'the utilization of specific notions, applying to a restricted group of facts, for the divination of the generic notions which apply to all facts.'"<sup>53</sup> The 'specific notions' mentioned here are those arrived at by observation and 'imaginative rationalization.' In his theory of induction "what Bacon omitted was the play of a free imagination, controlled by the requirements of coherence and logic."<sup>54</sup> The element of imagination is required because observation, even of 'a restricted group of facts,' involves express limitations. "The endeavour to frame a coherent, logical, necessary system of ideas in terms of which every element of our experience can be interpreted"<sup>55</sup> includes induction in that it is derived in part from observation of

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<sup>51</sup>See PR, p. 7.

<sup>52</sup>See A. N. Whitehead, Science and the Modern World (New York: The McMillan Company, Free Press, 1969), p. 44. In the remainder of the present undertaking this work will be referred to as SMW. See also, PR, p. 235.

<sup>53</sup>PR, p. 8.

<sup>54</sup>PR, p. 7.

<sup>55</sup>PR, p. 5.

facts. But it also involves imaginative speculation in that it extends the generalizations arrived at to all facts. Hence, metaphysics reaches tentative, provisional conclusions: "Metaphysical categories are not dogmatic statements of the obvious; they are tentative formulations of the ultimate generalities."<sup>56</sup> Descriptive generalization, then, in Whitehead's view, is not, indeed cannot be, strictly descriptive of, in the sense of totally comprising in verbal expression, all the elements of experience.

The method of descriptive generalization embodies a working hypothesis. The working hypothesis is a tentative or provisional theory in accordance with which the relevance of data which constitutes evidence for the theory is dictated. For example:

If we hold with Hume, that the sole data originating reflective experience are impressions of sensation, and also if we admit with him the obvious fact that no one such impression by its own individual nature discloses information as to another such impression, then on that hypothesis the direct evidence for interconnectedness vanishes.<sup>57</sup>

As noted above, observation involves limitation: We cannot observe all the facts. The selection involved in the observation of experience with the aim of adducing evidence is dictated by the theory tentatively held at the moment of

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<sup>56</sup> PR, p. 11.

<sup>57</sup> AI, p. 220.

observation. Whitehead, in the text cited immediately above, is not criticising Hume for utilizing a method which involves adherence to a particular theory. In fact, he thinks such a standpoint is necessary, if there is to be any criterion for the validity of evidence:<sup>58</sup> The tentatively held theory provides that criterion. Whitehead criticises Hume elsewhere,<sup>59</sup> on the basis that his theory is not 'adequate'--that is, that there are some items of experience incapable of being interpreted in terms of that theory. The failure to acknowledge the embodiment of a hypothetical element in philosophical method is involved in the emergence of dogmas.

The method of philosophy, according to Whitehead, involves a balance between rationalism and empiricism, in so far as that is possible. In Professor Pittenger's words:

It is empirical in that it begins from the most careful study of some given perhaps quite restricted area. This may be science in any of its branches; it may be religious experience or moral awareness or the realm of 'aesthetic.' But also rational, for from these careful studies of particular areas, generalizations are made.<sup>60</sup>

The empiricism resides in the appeal to experience. This is suggested by Whitehead's requirement that it be 'applicable'

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<sup>58</sup>See AI, p. 221.

<sup>59</sup>See PR, pp. 152-58.

<sup>60</sup>N. Pittenger, Alfred North Whitehead (London: Lutterworth Press, 1969), p. 18.

and 'adequate.'<sup>61</sup> But there is no rigid empiricism whereby imaginative generalization is disallowed. The "collapse of the method of rigid empiricism [\_...\_] occurs wherever we seek the larger generalities."<sup>62</sup> The rationalism of the metaphysical scheme resides in eliciting these generalities which involve imagination in so far as they refer to more than simple observation of particular instances. 'Imaginative rationalization' is controlled by the requirements of 'coherence' and 'logic.'<sup>63</sup>

The true method of discovery is like the flight of an aeroplane. It starts from the ground at particular observation; it makes a flight in the thin air of imaginative generalization; and it lands again for renewed observation rendered acute by rational interpretation.<sup>64</sup>

This illustrates the method of descriptive generalization.

As the outline of this method suggests, there is no complete, final, or absolute statement of what constitutes the nature of experience as we know it in this cosmos. Each cosmology involves the attempt to attain completeness and clarity of explanation. But the inexhaustive character of the universe and the limitations of the human mind prevent any single view from finally achieving that aim. This is

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<sup>61</sup>See PR, p. 6.

<sup>62</sup>PR, p. 7.

<sup>63</sup>PR, p. 6.

<sup>64</sup>PR, p. 7.

not to say that each individual view has no value in itself. "Philosophy makes a large generalization which obviously has some important validity. But if you turn it into a final cosmology, errors will creep in."<sup>65</sup> Whitehead applies this qualification to his own metaphysics. For, as we saw in section 1 of this chapter, although the fundamental problem of Process and Reality is to seek to elicit 'first principles,' Whitehead is quick to point out that "philosophers can never hope finally to formulate these metaphysical first principles."<sup>66</sup> The Categorical Scheme presented in Chapter II of the book aforementioned is, in effect, a lengthy working hypothesis. "It is the only structure he elaborated, but it would be rash to suppose all his mature metaphysical thought followed just those lines."<sup>67</sup> That is to say, the scheme could have been developed in a different way in terms of its details. Whitehead's cosmology is like Plato's in this regard: It is a "likely account,"<sup>68</sup> a plausible, provisional explanation of the workings of the cosmos. Acknowledgement

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<sup>65</sup>A. N. Whitehead, The Function of Reason (Boston: Beacon Press, 1969), p. 88.

<sup>66</sup>PR, p. 6.

<sup>67</sup>Lowe, Understanding Whitehead, p. 290.

<sup>68</sup>See Plato, Timaeus, Critias, Cleitophon, Menexenus, Epistles, trans. R. G. Bury (London: William Heineman; Cambridge, Massachusetts: Harvard University Press, 1929), 29C-D, p. 53.

of this characteristic of the philosophical enterprise need not be considered in a negative light. For its recognition constitutes a progressive step in the development of human knowledge: It constitutes the awareness of human limitations, the inexhaustive character of reality, and the resulting need for constant readjustment of human ideas concerning that reality.

### 3. The Metaphysical Categories and Principles

This section considers what Whitehead means by the terms 'category' and 'principle.' These terms have been employed down through the ages in many different ways. Although valuable, this has led to a great deal of ambiguity concerning their meanings. Whitehead employs the terms extensively, but seems never to deal thoroughly with their individual meanings. What follows is an attempt to arrive at an understanding of what he means, from implications in statements he makes concerning them.

#### (a) The Categories

In Process and Reality, Whitehead presents what he calls the Categoreal Scheme, which is a formal outline of the fundamental notions involved in his metaphysics. This is the basis of the remainder of the discussion in the aforementioned book. These notions are organized under four

headings: The Category of the Ultimate, The Categories of Existence, The Categories of Explanation, and the Categoreal Obligations. The Category of the Ultimate is presupposed in all the other categories which are more specialized. It refers to the ultimate character of fact, that which is to be explained or analysed in the system. Those types of entities said to exist are listed under the Categories of Existence, which are eight in number. From the standpoint of this dissertation, the most important are Actual Entities (Actual Occasions) which are the Final Realities, Prehensions which are Concrete Facts of Relatedness, and the Eternal Objects which are Pure Potentials for the Determination of Fact (Forms of Definiteness). The Categories of Explanation, twenty-seven in number, constitute the formal basis of any explanation or analysis of the Category of the Ultimate, analysis carried out in terms of the Categories of Existence. The most important of these from our point of view, are category (xviii) which expresses the Ontological Principle, category (iv) which expresses the Principle of Relativity, and category (ix) which expresses the Principle of Process. The nine Categoreal Obligations seem to have little to do with moral obligations. As the title suggests, they are obligations concerning the other categories, mainly the categories of explanation. They seem to be logical obligations required for the preservation of coherence. No

single one of these categories is more important than any other, from the point of view of this dissertation. However, all are required in the system elaborated in Process and Reality.

As Whitehead's method of descriptive generalization would seem to suggest, the term, 'category' refers to something other than a function of the understanding imposing conditions on experience.<sup>69</sup> Certainly, the categories promote understanding, but they are not conditions imposed on experience in virtue of something external to it. Their function is methodological. They are descriptions of features inherent in experience. Although Whitehead begins with an outline in terms of tentatively expressed categories or descriptions, accuracy is what he seeks: "The accurate expression of the final generalities is the goal of discussion and not its origin."<sup>70</sup> The generalities are 'final' in the sense that they are the most general descriptions of experience. But this is not to say that they are ontologically absolute: "Metaphysical categories are not dogmatic statements of the obvious; they are tentative formulations of the ultimate generalities."<sup>71</sup>

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<sup>69</sup> See section 2 above for a discussion of Whitehead's concept of experience.

<sup>70</sup> PR, p. 11.

<sup>71</sup> PR, p. 11.

They are provisional descriptions or generalizations of features of experience.

The categories understood in this sense, are the subject matter of philosophy. The function of the latter is to categorise or describe the most concrete features of experience. After presenting the Categorical Scheme in Process and Reality, Whitehead states that

the whole of the subsequent discussion in the subsequent parts either leads up to these categories (of the four types), or is explanatory of them or is considering our experience of the world in light of these categories.<sup>72</sup>

His metaphysics, in other words, exemplifies and clarifies the categories, and shows how they are applicable to experience. The categories do not so much explain why experience came to be this way, as describe how it is. This perhaps, is the suggestion in Whitehead's use of the term 'categorical' rather than 'categorical.' What is 'categorical' is descriptive of experience. In Whitehead's estimation, experience exhibits its own reasons for being: Each moment of experience possesses the feature of self-creativity.<sup>73</sup> The philosophical task, then, is not to search for reasons beyond these reasons, but to describe the features exemplified in the moments of concrete experience.

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<sup>72</sup>PR, p. 33.

<sup>73</sup>The notion of the self-creativity of the occasion of experience will be more fully discussed in chapter III.

## (b) The Principles

The categories describe principles. For example, the category of the ultimate expresses a general principle presupposed in other more special categories, and category of explanation (iv) expresses the principle of relativity.<sup>74</sup> In the case of category (xviii) Whitehead seems to identify the category with the ontological principle. However, a distinction between category and principle may be made. For a category seems to be a description or expression, whereas the principle is that which is described or expressed. The categories are attempts to articulate the principles inherent in experience. A principle is a feature or character of experience. A category is a tentative, descriptive, general concept. It denotes a principle which is a feature of experience.

According to this account, the notion of a principle, although it also denotes propositions which are exemplified in features of experience, is primarily interpreted by Whitehead in an ontological sense. He speaks of the principle of creativity, for example, as something which "lies in the nature of things."<sup>75</sup> A principle, however, is not a causal agency. The only causal agencies are actual entities. A principle is an abstract form or character which is exemplified in a moment of experience, i.e., in an actual

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<sup>74</sup> See PR, p. 25, and p. 27.

<sup>75</sup> See PR, pp. 25-6.

entity or in a series of actual entities.<sup>76</sup> 'Form' is understood here in the Platonic sense as referring to an objective abstraction, that is, one which is not dependent on a mind to conceive it, and is denoted by a universal term.<sup>77</sup> The principle differs from the Platonic form in that it does not exist in separation from experience: The actual entities exemplify the principle--the principle is embodied in the activities which are those entities. The principle is fundamental in that it constitutes a definite feature of experience. There is, in Whitehead's metaphysics, only one kind of reality, one kind of experience, namely, actual entities characterised by process, of which the principles are definite features, abstract characters exemplified therein.

But as indicated at the beginning of this sub-section on the distinction between categories and principles, Whitehead never deals thoroughly with the individual meanings of these concepts. Indeed, on many occasions the two are confused. Hence, the interpretation of the distinction presented here is not clearly substantiated in contrast to another such interpretation. As far as this writer can discover, however, there is no evidence in Process and Reality to indicate that any particular interpretation should take precedence. Whitehead's

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<sup>76</sup>See A. H. Johnson, "Whitehead as Teacher and Philosopher," Philosophy and Phenomenological Research, vol. 29, p. 374.

<sup>77</sup>See A. E. Taylor, Platonism and Its Influence (New York: Cooper Square Publishers, 1963), p. 34.

lack of clarity here is a limitation in the quest for accuracy.

#### 4. Summary and Conclusion

In this discussion, we saw that the fundamental problem Whitehead deals with is that of the 'complete fact,' which is, in effect, the classical problem of 'what that is which is in this sense.' Whitehead divorces himself from the Aristotelian attempt to resolve the problem with the doctrine of primary substance. Instead, he substitutes the theory of actual entities and the doctrine of universal relativity. However, he does not develop the latter in terms which make explicit the meaning of the phrase 'universal relativity.' The basic task in the subsequent chapters of this dissertation is to elaborate the doctrine in terms more appropriate for an understanding of that phrase. This involves clarification of basic notions in Whitehead's metaphysics in terms of modes of relation.

The doctrine of universal relativity is a complex description of the most general features of experience. It is basically expressed by the category of the ultimate and developed in terms of principles expressed by certain categories of explanation. Each of these aspects of Whitehead's metaphysics may be interpreted in the form of relations. Taken together, they constitute the general character of concrete experience.

## CHAPTER II

### THE CATEGORY OF THE ULTIMATE

The formal and most general statement of the doctrine of universal relativity is the category of the ultimate. This category is presented in the Categorical Scheme of Process and Reality. It is analysed in terms of the notions of one, many, and creativity. Each of these notions consists in a form of relation: The one is the relation of conjunctive unity; the many is the relation of disjunctive diversity; and creativity is the interrelation of the two former types of relation, the advance from disjunctive diversity to novel conjunctive unity.

The term 'ultimate' seems to convey the sense of 'universality.' But it is used in reference both to the categories and to the principles. In each case, the meaning conveyed involves an important distinction. The ultimate category is 'universally denotative of' the ultimate principle which is 'universally present in' experience.

The present chapter consists of a discussion of the category of the ultimate as the most general statement of the doctrine of universal relativity. It considers the precise statement of the category, and the meaning of the term 'ultimate.'

1. Statement of the Category of the Ultimate

Involved in the statement of the category of the ultimate are the notions of creativity, one, and many. "These three notions complete the Category of the Ultimate and are presupposed in all the more special categories."<sup>1</sup> Each of the above notions refers to an entity or group of entities which Whitehead interprets in terms of relations.

The term 'one' refers to "the singularity of an entity."<sup>2</sup> The entity is singular because it is definite in its unity. This unity consists in the conjunction of many (a multiplicity of) other entities in its environment. Conjunctive unity is the synthesis of other entities experienced, into a new entity, namely, the singular one which is synthesising. The synthesis is a complex relation, and the entity consists in that relation. This is an ultimate notion involved in the category of the ultimate. It is, as such, a feature of the ultimate character of experience.

The term 'many' refers to a multiplicity or plurality of entities. The multiplicity itself is not an entity. It "conveys the notion of 'disjunctive diversity.'"<sup>3</sup> This disjunction affects the character of each of the many entities

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<sup>1</sup>PR, p. 25.

<sup>2</sup>PR, p. 25.

<sup>3</sup>PR, p. 25.

by entailing their diversity. Therefore, it is a kind of relation among those entities. Unlike the relation of conjunctive unity, this relation does not synthesize entities, but distinguishes them. The relation of disjunctive diversity is the meaning of distinction. This is the ultimate notion conveyed by the term 'many' in the category of the ultimate. It is, as such, another feature of the ultimate character of experience.

The one entity presupposes the many entities in that the singularity of the former consists in the novel conjunction or synthesis of many other entities diverse from itself: "The many become one, and are increased by one."<sup>4</sup> The one entity is not fundamentally separated but distinguished from the many entities which it synthesises in its own unity. The notion of the many denotes the relation of disjunctive diversity among singular entities. It indicates the definite relation among distinct, conjunctive unities. The mutual presupposition of the one and the many is involved in the idea of 'togetherness.' The latter is a generic term which refers to the various ways in which there is connection or relation of entities.

Whitehead employs the term 'creativity' to denote this togetherness of entities. Creativity "is the advance

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<sup>4</sup>PR, p. 26.

from disjunction to conjunction creating a novel entity other than the entities given in disjunction."<sup>5</sup> This refers to a process which is analysable in terms of the interrelation of diverse entities. In other words, creativity consists in the interrelation of the one and the many. This involves the production of a novel conjunction or synthesis of many diverse entities which increases the multiplicity synthesised. Creativity is an ultimate notion in Whitehead's category of the ultimate. It denotes the character of experience he terms 'ultimate.'

All instances of such experience are 'together.' But the term 'togetherness' should not be understood as implying the absolute unity of a whole of which these entities are merely attributes. It refers to what Whitehead calls the 'withness'<sup>6</sup> of experience. Withness conveys the idea of connection or relation among individual elements or instances of experience without recourse to any other entity beyond or separate from experience. Hence, when Whitehead claims that "'together' presupposes the notions of 'creativity,' many,' 'one,' 'identity,' 'diversity,'"<sup>7</sup> he means, apparently, that the latter notions refer to various ways in which entities

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<sup>5</sup>PR, p. 26.

<sup>6</sup>Whitehead uses this term in this way somewhere in PR.

<sup>7</sup>PR, p. 26.

are together or related. The togetherness is to be found in experience, not in a substance which lies beyond it. The terms 'one,' 'many,' and 'creativity' are distinct ways of describing how entities are experientially together or related. The category of the ultimate requires all of these terms in its complete statement, and thereby postulates the ultimacy of togetherness specified in the ways indicated by these terms. 'Creativity' is the most universal term denoting the ultimate character of experience.

Since creativity is the ultimate character of experience, it is the ultimate principle, in the sense that Whitehead uses that term. For, as we saw in chapter I, the term 'principle' refers to a character or feature of experience. Also, since creativity consists in the interrelation of two basic features, namely, the 'one-ness' of experience, and the 'many-ness' of experience, it involves the interrelation of the ontological principle, and the principle of relativity. (How these principles are to be understood in the senses specified here will be developed in subsequent chapters.) The principle of creativity is also referred to as the principle of process.

The creative togetherness or relatedness of experience does not necessarily mean the complete coherence of experience.<sup>8</sup>

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<sup>8</sup>See W. Mays, The Philosophy of Whitehead (London: Macmillan, 1959), p. 48. Professor Mays claims that Whitehead presupposes that experience is coherent.

Describing experience exclusively in terms of the coherence of its instances involves the presupposition of a static, complete, and absolute unity, which, according to Whitehead is a distortion of fact. If experience were exclusively coherent, the uncoordinated multiplicity of instances of experience that Whitehead describes as the 'many' in the category of the ultimate, could not be found. Yet experience involves a degree of incoherence or discordance in that there is a variance among its individual instances. The partial coherence or unity in experience derives from the conjoining or synthesising entities. The process whereby the conjunctive unit emerges, involves "the transformation of incoherence into coherence."<sup>9</sup> In other words, the many incoherent or uncoordinated elements in the environment of a synthesising entity become coherent or coordinated as parts of the one conjunctive unity which is that entity. Coherence is relative to such entities. Creative togetherness is a mode of relatedness which may be described as involving only relative coherence among the elements related.

The category of the ultimate is postulated as the broadest description of the ultimate character of experience. It expresses the ultimacy of togetherness or relatedness, which may be analysed in terms of three notions, namely,

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<sup>9</sup>PR, p. 30.

the one, the many, and creativity. These three notions are developed respectively in terms of the theory of internal relations, the theory of external relations, and the doctrine of process. Taken together they constitute Whitehead's account of the ultimate character of experience.

## 2. Ultimacy and Universality

Whitehead, in Process and Reality, does not present an explicit definition of the term, 'ultimacy.' In An Enquiry Concerning the Principles of Natural Knowledge (first edition 1919, second edition 1925), however, he defines it as "not analysable into a complex of simpler entities."<sup>10</sup> But this definition is not applicable in Process and Reality, because the notion of relatedness which is referred to as ultimate, is a complex notion analysable in terms of simpler entities or more special notions, namely, the interrelation of the one and the many. During the process of the development of the broader view of Process and Reality, Whitehead's definition of the term 'ultimacy' seems to have changed.

On the one hand, he speaks of 'ultimate generalities,' on the other, of 'ultimate principles.' In the first case,

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<sup>10</sup>See A. N. Whitehead, An Enquiry Concerning the Principles of Natural Knowledge (2d ed.; Cambridge: Cambridge University Press, 1925), p. 6. In the remainder of the present undertaking this work will be referred to as PNK.

he is referring to categories or general descriptions; in the second, to principles as features of experience. The ultimacy of a category derives from the ultimacy of the principle which it expresses. The meaning conveyed in each case is different. The category is ultimate or universal in the sense of 'universally denotative of.' This is a qualification of description, expressing its range of application. The principle is ultimate or universal in the sense of 'universally present in.' This is a qualification of experience, of its most comprehensive character. Creativity, for example, is an ultimate category in the sense that the term 'creativity' is a universal denoting a feature of experience, applicable to experience as a general description of that feature. It is ultimate principle in that it is universally present in experience as the feature whereby experience is describable as 'advancing from disjunctive diversity to novel conjunctive unity.' The ultimate category expresses the ultimate principle because it is the only category universal enough to be applicable to every element of experience in which the principle is embodied.

Whitehead explicitly associates ultimacy with generality or universality: "The Category of the Ultimate expresses the general principle presupposed in the more special categories."<sup>11</sup>

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<sup>11</sup>PR, p. 25.

This statement, however, does not make clear whether the term "Ultimate" refers only to the "Category," only to the "general principle," or to both. In another text taken from a work originally published in 1922 during what is referred to as his Second or Middle Period,<sup>12</sup> Whitehead states that "what I really doubt is whether there is any term sufficiently comprehensive to embrace ultimate fact."<sup>13</sup> Here, he is concerned with finding a category which is universal or "comprehensive" enough to refer to "ultimate fact." For the "ultimate fact" is a principle or feature which is universally present in experience.

Ultimacy or universality should not be associated simply with high abstraction (categories), but also with concrete experience (specifically its principles or features). Hence a principle is ultimate or universal, but not in the sense in which it is remote from experience. As Professor Lowe explains:

There is a prevalent assumption that whatever is defined by a formal scheme of ideas (ideally by a set of postulates) is ipso facto abstract in an invidious sense which removes it from direct contact with experience.<sup>14</sup>

The suggestion here is that a principle "defined by" a

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<sup>12</sup>See V. Lowe, Understanding Whitehead (Baltimore: Johns Hopkins Press, 1962), especially p. 121.

<sup>13</sup>A. N. Whitehead, "The Idealistic Implication of Einstein's Theory," The Interpretation of Science, ed. A. H. Johnson (New York: Bobbs-Merrill Company, 1961), p. 148.

<sup>14</sup>V. Lowe, "The Concept of Experience in Whitehead's Philosophy," Alfred North Whitehead: Essays on His Philosophy, ed. G. L. Kline (Englewood Cliffs: Prentice-Hall, 1963), pp. 127-28.

category in the "formal scheme of ideas," although universal or "abstract," is nevertheless in contact with concrete experience. For it is universally present as a feature in experience. Hence, "speculative philosophy can pursue in a single hypothesis, the general and the concrete."<sup>15</sup> In other words, Whitehead's speculative philosophy is an attempt to discover a category sufficiently universal in denotation ("the general") to express the feature which is universally present in experience ("the concrete"). The category of the ultimate, then, seems to be a universal (general) description of a universal (concrete) feature of experience.

The category of the ultimate should not be construed as referring to some kind of absolute substance which exists eminently beyond concrete experience. Whitehead points out that the principle of creativity which is expressed by the category of the ultimate belongs to the "nature of things" and "that there is nothing in the universe other than the instances of this passage and components of these instances."<sup>16</sup> Hence, creativity is the universal character belonging, as such, to every individual instance of experience. There is no final, complete, or absolute whole which lies behind the relatedness inherent in experience in virtue of its creativity.

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<sup>15</sup>See A. E. Murphy, "Objective Relativism in Dewey and Whitehead," The Philosophical Review, vol. 37, 1928, p. 127.

<sup>16</sup>AI, p. 236.

"There are many ones. But there is no one which is the complete totality of the Many."<sup>17</sup> The category of the ultimate is a universal description of the universal principle of creativity whereby experience is characterized as universally related.

The universal relatedness of entities in experience consists in their connection without the attainment of complete unity. In other words, they are conjoined in virtue of certain aspects of their constitution, and disjoined in virtue of other aspects of their constitution. But both the conjunction and the disjunction are forms of relatedness. The conjunction is what Whitehead calls internal relatedness, and the disjunction what he calls external relatedness. Interrelated, these two types of relation constitute the ultimate or universal character of experience.

### 3. Summary and Conclusion

The category of the ultimate is the formal statement in Whitehead's metaphysics of the doctrine of universal relativity. And, as we saw in chapter I, this doctrine taken together with the theory of actual entities constitutes Whitehead's attempt to answer the traditional metaphysical question of being, 'what that is which is in this sense.' The category

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<sup>17</sup>I. Leclerc, Whitehead's Metaphysics: An Introductory Exposition (London: Allen and Unwin, 1958), p. 211.

of the ultimate, then, is part of Whitehead's explanation of the character of being.

Unlike Aristotle's notion of substance, which is his primary categorisation of being, it involves not only the individual thing but the interrelation of individual things. The category of the ultimate states that being is essentially interrelated or creative, that the many individual things in experience are synthesised in each new individual (one). This is the primary category of being according to Whitehead. The metaphysics of Process and Reality involves his complete elaboration or development of this category.

As the statement of the category of the ultimate indicates, the ultimate character of being is analysed by Whitehead in terms of relations. The notions involved in the category are one, many, and creativity. The one is a general idea which is analysed as the relation of conjunctive unity. This refers to the conjunction or synthesis of other entities diverse from the given one. The notion of the many is analysed in terms of the disjunction or distinction of diverse entities. Although it is by virtue of the disjunction that entities are diverse and constitute a plurality, nevertheless, the disjunction is a relation, the relation of difference or distinction. The notion of creativity is understood in terms of the interrelation of the one and the many. It is the advance from disjunctive diversity to novel conjunctive unity. It is fully

analysed in terms of relations.

Although Whitehead does not present a formal definition in Process and Reality of what he means by the term 'ultimate,' a sense of universality seems to be conveyed in the way it is used. When qualifying categories it means 'universally denotative of.' Hence, the category of the ultimate, for example, is universally denotative of the primary features of experience. It is a universal description or a descriptive generality. When qualifying principles, the term 'ultimate' means 'universally present in.' Hence, the principle of creativity is universally present (exemplified) in experience as its primary character. So the term 'ultimate' is used equivocally to refer to the universal denotation of the categories, and to the universal presence in experience of the principles.

Accordingly, the category of the ultimate may be defined as universally denotative of a principle which is universally present in experience as its primary character. This is the principle of creativity which involves the interrelation of the ontological principle and the principle of relativity. The two latter principles are, respectively, the features of unity and plurality, which are fundamental in experience. These features are analysed in terms of relations. Hence, the category of the ultimate may be understood as expressing the universal relatedness of experience. As such, it is a general statement of the doctrine of universal relativity.

The analysis of this doctrine is fully developed by three important theories in Whitehead's metaphysics. The theory of internal relations is an extension of what in the category of the ultimate is referred to as the one. It is an analysis of the process of concrescence or internal synthesis of an instance or moment of experience, which Whitehead refers to as the actual entity or actual occasion. The theory of external relations is the development of the notion of many-ness or plurality in the category of the ultimate. It constitutes Whitehead's analysis of relatedness by objectification. It explains how one entity is distinguished from, yet present in another in virtue of its objective character. The theory of internal relations and the theory of external relations are separated in analysis. But they are interrelated conceptions of the same process. This idea is presented in the notion of creativity in the category of the ultimate, and developed in terms of the doctrine of process. The doctrine of process understood in its broadest terms, as the interrelation of the theory of internal relations and the theory of external relations, constitutes the final phase of the complete analysis of the universal relativity of experience.

## CHAPTER III

### THE THEORY OF INTERNAL RELATIONS

The category of the ultimate, as we saw in the previous chapter, is the most general description of the doctrine of universal relativity. It expresses the ultimacy or universality of the relatedness of experience in terms of the notions of the one, the many, and creativity. In this chapter we will deal with the theory of internal relations which constitutes the analysis of the notion of the one. As such, this theory develops an aspect of the category of the ultimate and the doctrine of universal relativity.

The theory of internal relations, in effect, is an analysis of the ontological principle in Whitehead's metaphysics. This principle embodies a basic feature of experience, namely, the fact of individual unity, which is referred to in the category of the ultimate as the one, or conjunctive unity.

#### 1. Statement of the Ontological Principle

##### (a) The Ontological Principle as Principle of Internal Relations

The ontological principle is a fundamental principle in Whitehead's metaphysics. It is expressed in the category of explanation (xviii) in the Categoreal Scheme. Category

(xviii) states:

That every condition to which the process of becoming in any particular instance, has its reason either in the character of some actual entity in the actual world of that concrescence, or in the character of the subject which is in process of concrescence.<sup>1</sup>

The notions of "actual entity" and "concrescence" are stressed in the statement of the ontological principle. In other words, the latter is a feature of experience describable in terms of actual entities which are processes of becoming conditioned by aims or purposive characters. Actual entities are the basis for any further explanation of things or objects in the material or non-material world: "By the ontological principle whatever things there are in any sense of 'existence' are derived by abstraction from actual occasions."<sup>2</sup> All statements about objects referred to in material or non-material senses are analytically reducible to statements referring to actual entities. This is a consequence of a condition inherent in the nature of things, the condition which Whitehead calls the ontological principle.

The ontological principle is a definite feature of experience, the feature of internal causality. Whitehead states:

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<sup>1</sup>PR, p. 29.

<sup>2</sup>PR, p. 90.

The 'ontological principle' broadens and extends a general principle laid down by John Locke in his Essay (Bk II, Ch. xxiii, Sect. 7), when he asserts that 'power' is a 'great part of our complex ideas of substances.' The notion of 'substance' is transformed into that of 'actual entity'; and the notion of 'power' is transformed into the principle that the reason for things are always to be found in the composite nature of definite actual entities--in the nature of God for reasons of the highest absoluteness, and in the nature of definite temporal actual entities for reasons which refer to a particular environment. The ontological principle can be summarised as: no actual entity, no reason.<sup>3</sup>

What Whitehead means by the term 'reason' is to be understood in reference to his comments on Locke. For the 'reasons' are what Locke calls the 'powers' found in experience, 'powers' which are causes in the sense that they "change some sensible qualities in other subjects" and "produce in us /.../ complex ideas."<sup>4</sup> Although for Whitehead, as for Locke, causality is in experience, the notion of 'power,' in Locke, is transformed by Whitehead, into the notion of 'principle,' and a principle is a feature or character of experience. It is not itself a cause. It is the character of the causal agency which resides in actual occasions. The so-called Laws of Nature, for example, are principles in this sense.<sup>5</sup> They are not causes externally imposed upon experience, but features of what happens, definite

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<sup>3</sup>PR, p. 23.

<sup>4</sup>See John Locke, An Essay Concerning Human Understanding vol. I (London: J. M. Dent, 1967), II, xxiii, 7, p. 248.

<sup>5</sup>See D. Emmet, Whitehead's Philosophy of Organism (London: Macmillan, 1932), p. 210.

characters whereby experience is describable. The ontological principle is the feature of experience which may be described as the fact of causal agency. The agency is the process which constitutes the actual occasion. It is the process of self-creation or self-causation. In this sense, it is internal to the actual occasion. As Professor Sherburne explains:

An actual occasion is not to be abstracted into something apart from, behind or containing its agency. It is its agency, or process, its very being is constituted by its process, its becoming. No process, no existence; and apart from actual entities there is no process. This is the ontological principle.<sup>6</sup>

The principle itself is not the causal agent; it simply characterises the fact of causal agency observed in experience. The description of the ontological principle expresses that there is causality in experience and that it resides in the self-creative process of the actual entity.<sup>7</sup>

Whatever is of this world, according to the ontological principle, derives from the internal constitution of actual entities: "It follows from the ontological principle [^...\_] that the notion of a 'common world' must find its exemplification in the constitution of each actual entity, taken by

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<sup>6</sup>D. W. Sherburne, A Whiteheadian Aesthetic (New Haven: Yale University Press, 1961), p. 9.

<sup>7</sup>The statement of the ontological principle establishes that causality is found in actual occasions. How causality is to be understood concerns the analysis of the notion of the actual occasion outlined in a subsequent section of this chapter.

itself for analysis."<sup>8</sup> Internally, the actual entity is of a composite or synthetic nature, including other aspects of experience in its own constitution, as elements of its process or character. These diverse elements, process and character, are referred to as the physical and conceptual poles of the actual entity. They are diverse only in analysis and not in fact. The two poles are types of relation whereby the actual entity draws other elements of experience into itself. The analysis of the actual entity is carried out mainly in terms of these relations.<sup>9</sup> In so far as the ontological principle is the character of experience described in terms of actual entities, it may be understood as the principle of the internal relatedness of these entities.

(b) Internal Relations

Whitehead states:

The conception of internal relatedness involves the analysis of the event (actual entity) into two factors, one the underlying substantial activity of individualisation and the other the complex of aspects--that is to say, the complex of relatedness entering into the essence of the given event--<sup>10</sup> which are unified by this individualised activity.

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<sup>8</sup>PR, p. 171.

<sup>9</sup>See PR, p. 28. Category of explanation (x) explains that the first analysis of the actual entity discloses it to be a concrescence (process of becoming) of prehensions (relations), and that all further analysis is carried out in terms of prehensions.

<sup>10</sup>SMW, p. 123.

In other words, the actual entity is a process of synthesis whereby other entities enter into the internal constitution of the given entity. The notion of synthesis combines the notions of individual unity and essential relatedness--the "two factors" in the actual entity. The actual entity is an individual unity because its relatedness is synthetic. It is essentially related because the synthesis which it is, involves relation to other entities. The process of becoming which constitutes the internal content of the actual entity is, at once, an individual unity that is related to others. It is that individual by reason of the unity of relations in terms of which its becoming is analysed. "The event (actual entity) is what it is by reason of the unification in itself of a multiplicity of relationships."<sup>11</sup> This is the essence of Whitehead's theory of internal relations.

An actual entity X, for example, is an individual unity, namely, X, which, as such, involves in itself an essential relatedness to other entities. X is X because in its definiteness as X it refers to U,V,W, etc., not as individuals, but in general, in so far as they are 'other letters of the alphabet of which X is a member.' Obviously, X does not contain in its own constitution U,V,W, etc., in their separate individualities. But as 'a letter of the alphabet,' X essentially includes a

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<sup>11</sup>SMW, p. 123.

general relatedness to other entities which are also members of the same alphabet, yet which it excludes as individually contained in itself. The relatedness of X to the other letters in the alphabet in general is what defines it as a member of a class, namely, the class of entities which constitute the alphabet. Hence, the difficulty concerning how we can have finite unity or knowledge under a theory of internal relations is resolved. For, although each actual entity depends on everything else, the phrase 'everything else' is to be understood in a general sense. Other entities are essentially included in the given actual entity, not simpliciter, but in a general--that is to say, partial way.<sup>12</sup>

The actual entity, then, as synthetic process of becoming, is finite or atomic because it "excludes the unbounded welter of contrary possibilities."<sup>13</sup> Experience involves finitude or atomicity in so much as it consists of such units of becoming. 'To become' really means 'to become something definite or specific.' Hence, the ontological principle which is the feature characterising experience understood in this way, may be said to be the principle of finitude or individual unity.

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<sup>12</sup>See SMW, pp. 163-66. The elaboration of this resolution to the problem concerning the notion of internal relations, is further analysed in terms of the theories of 'immanence' and 'objectification' which will be dealt with later.

<sup>13</sup>AI, p. 276.

At this point, a digression from the main topic of this sub-section is in order, to discuss the problem raised by the last statement in the preceding paragraph. The problem concerns the distinction between the concepts of the ontological principle and God in respect to the individual definiteness of actual entities. For, on the one hand, the ontological principle is the principle of individual definiteness in the way described above, while, on the other hand, God is said to be the principle of general determination or concretion whereby there is initiated "a definite outcome otherwise riddled with ambiguity."<sup>14</sup> God is the principle of the "particularity" of the actual entity.<sup>15</sup> The ontological principle and God are assigned the single role of accounting for the individual unity of actual entities.

God is the source of order or harmony in the world, providing each actual entity with its initial aim or purpose. God Himself is an actual entity, but unlike other actual entities, His actuality is partially atemporal: He is eternal and everlasting. Hence he is the permanent actual source of order and harmony, including the individual unity of other actual entities. However, as actual, God is not a principle. For a principle is not a potentiality, a feature inherent

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<sup>14</sup>PR, p. 406.

<sup>15</sup>See K. F. Thomson, Whitehead's Philosophy of Religion (The Hague: Mouton, 1971), pp. 33-34.

in experience. God is the actual source of individual unity in that he provides the principle of limitation. Professor Johnson in conversation with Whitehead suggested this idea, that "God provides, not is the principle of concretion.... Whitehead replied: 'You are right.'"<sup>16</sup> Johnson justifies this point of view by underlining the fact that a principle is a possibility, while God is an actuality. God then, is the actual occurrence whereby individual unity is a fact of experience. The ontological principle, it appears, is the objective character of this fact.

The ontological principle of internal relations embodies the character of actual entities as essentially related individual units. This principle is a fundamental feature of experience. The description of the ontological principle may be stated "as the definition of 'actuality.' It amounts to the assumption that each actual entity is a locus for the universe."<sup>17</sup> As "locus" the individual entity is a synthesis of relations with other entities. The internal constitution of an individual unit of actuality, in other

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<sup>16</sup>A. H. Johnson, "Whitehead as Teacher and Philosopher," Philosophy and Phenomenological Research, vol. 29, 1969, p. 368. Professor Johnson was enrolled in a graduate tutorial under Whitehead at Harvard in the academic year 1936-37. This paper presents some of the discussions he had with Whitehead during these tutorials.

<sup>17</sup>PR, p. 97.

words, consists of a real togetherness of other entities  
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in the universe.

In the subsequent sections of this chapter, the notion of the internal relatedness of the actual entity is discussed more fully in terms of some of the more important technical definitions of Whitehead's metaphysics as it is presented primarily in Process and Reality.

## 2. The Self-creativity of the Actual Entity

### (a) Self-creativity as Atomic Act

As we saw above, the actual entity is an individual or atomic unit which is essentially related to others. But Whitehead sometimes inordinately emphasises the atomism of the actual entity. For example, he claims that "the ultimate metaphysical truth is atomism."<sup>19</sup> The emphasis here is inordinate in virtue of the definite article "the." For the ultimacy of the atomism of the actual entity does not preclude the ultimacy of its relatedness to others. The view suggested by the statement cited here, however, is significantly qualified.

In referring to the ultimacy of atomism, Whitehead intends to suggest that there is no single process that is

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<sup>18</sup>PR, p. 38.

<sup>19</sup>PR, p. 141.

absolutely continuous--that is, one which is continuous throughout all space and time. In other words, there are many unit processes, actual entities or actual occasions, each of which is "divisible" but "in fact undivided."<sup>20</sup> In other words, although the unit process or actual entity is capable of division by analysis, it is de facto undivided. It is a limited unit in virtue of its actual atomicity, the atomicity of its immediate activity or process. This is what Whitehead seems to mean when he says that "actual entities /.../ are what they are."<sup>21</sup>

The atomism of the actual entity consists in its aspect of causa sui, self-causation, self-creativity. Whitehead states:

To be causa sui means that the process of concrescence (in which the actual occasion consists) is its own reason for the decision in respect to the qualitative clothing of feelings /.../. The freedom inherent in the universe is constituted by this element of self-causation."<sup>22</sup>

The actual entity is not entirely, but partially self-creative: It involves an "element of self-causation." The immediate act of the actual entity is a free act determined by the actual entity itself. There is no external force completely determining what exactly that entity will be. God, however,

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<sup>20</sup>PR, p. 265.

<sup>21</sup>PR, p. 41.

<sup>22</sup>PR, p. 106. (Second underlining mine.)

makes available the initial aim or purpose, whereby the actual entity is generally directed towards a certain form of experience. Nevertheless, this aim is modified by each entity in the act of realization. The modification is the result of the immediate activity of the actual entity, the act of self-creation whereby the entity attains a measure of absoluteness or atomicity.

More specifically, Whitehead uses the term 'atomic' in reference to actual entities to indicate the temporal limitation of their self-creative activity. The activity of the actual entity is specific, definite, limited in time. Unlike Leibniz's monad, however, Whitehead's actual entity is not 'windowless:' The perceptions of the actual entity are not merely consequences of its own being. Its perceptual data are made available by other actual entities.<sup>23</sup> Also, there is literal transfer of content between actual entities.<sup>24</sup> In other words, the actual entity is a relational entity, of which the essential constitution is influenced by other actual entities. But it is an activity which is temporally atomic.

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<sup>23</sup> See the discussion of objectification below, chapter IV, section 3.

<sup>24</sup> See the discussion of immanence below, chapter III, section 3(c).

Whitehead also uses the term 'atomic' to refer to the decisiveness of actual entities. "'Decision' [...]" constitutes the very meaning of actuality."<sup>25</sup> Actuality understood in this sense involves limitation or finitude. A decision is that

whereby what is 'given' is separated off from what for that occasion is 'not given.' This element of 'givenness' in things implies some activity procuring limitation. The word 'decision' does not here imply conscious judgment, though in some 'decisions' consciousness will be a factor. The word is used in its root sense of 'cutting off.'<sup>26</sup>

The actual entity is an atomic unit in virtue of its decision or act of 'cutting off.' The entity involves in its constitution what is 'given,' but also, in addition, it limits what is 'given' thereby creating in its own activity something which is 'not given.' As decisive, it alters its environment thereby entailing its own partial independence from other entities in that environment.

The problem concerning the atomism or exclusiveness of the actual entity has been stated in this way by Professor Das:

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<sup>25</sup>PR, p. 56.

<sup>26</sup>PR, p. 57.

Is it /\_the actual entity\_7 an absolute individual above and outside the network of social relations which bind together all objects? Or is it a nature that its very being consists in such relations?<sup>27</sup>

There is a tacit presupposition here that the actual entity is either wholly atomic, or wholly relative. Professor Lee, in a discussion of the notion of continuity in Whitehead's Process and Reality, argues that there is no real atomism in Whitehead's actual entity; that the latter does not propound a theory of simple and indivisible unities; that by atomism Whitehead means "unity of the sort we mean when we speak of individuality."<sup>28</sup> He contends that at the basis of Whitehead's empiricism lies the notion of the "full continuity" of experience.<sup>29</sup> The assumption in this point of view is that the actual entity cannot be wholly atomic because it is wholly continuous with other actual entities.

According to Whitehead, however, the actual entity is both atomic and continuous--in different respects. Even some of his moments of the over-emphasis of atomism are short-lived. In the same paragraph in which he states that "the ultimate metaphysical truth is atomism" he also states that

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<sup>27</sup>R. Das, The Philosophy of Whitehead (London: J. Clarke, 1938), p. 178.

<sup>28</sup>See H. N. Lee, "Causal Efficacy and Continuity in Whitehead's Philosophy," Tulane Studies in Philosophy, vol. 10, 1961, p. 64.

<sup>29</sup>Lee, "Causal Efficacy and Continuity...", p. 70.

"each atom is a system of all things."<sup>30</sup> The measure of continuity suggested here should not be interpreted solely as potential continuity, which, according to Professor Lee, can only be a "pseudo-continuity"<sup>31</sup> or succession of discrete parts. For (as we shall see in greater detail in section 3 of this chapter) the actual entity involves a measure of actual or internal continuity with other actual entities: One entity is immanent in, or partially identical with another. The point to be stressed, however, is that in each actual entity there is a measure of atomism and a measure of continuity: Each is atomic in some respects and continuous in other respects.<sup>32</sup>

The temporal atomicity of the immediate actuality or self-creativity of actual entities entails the radical independence of contemporary occasions.

The mutual independence of contemporary occasions lies strictly within the sphere of /.../ teleological self-creation /.../. The immediate activity of self-creation is separate and private, so far as contemporaries are concerned.<sup>33</sup>

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<sup>30</sup>PR, p. 41.

<sup>31</sup>Lee, "Causal Efficacy and Continuity...", p. 70.

<sup>32</sup>It should be noted that although the consideration here is with the notions of atomicity and continuity each understood in an actual sense, i.e., in terms of internal relations, both notions may also be interpreted in terms of external relations. See chapter IV, section 2 below, on objective relatedness and objective diversity.

<sup>33</sup>AI, p. 195.

Each actual entity is atomic in the immediacy of the occurrence of self-creation. As such, each is causally independent of its contemporaries. Whitehead qualifies this by claiming that contemporary actual entities are indirectly related to each other:

The occasions originate from a common past and their objective immobility operates within a common future. Thus, indirectly, via the immanence of the past and the immanence of the future, the occasions are connected.<sup>34</sup>

In other words, contemporaries are related indirectly in virtue of the common past they have emerged from, and the common future to which they aim. According to Professor Johnson, this is a rather "tenuous" relation.<sup>35</sup> And Whitehead himself points out that even if two actual entities emerge from identical pasts, they are different in virtue of their decisive elimination of aspects of that past. So the independence of contemporaries in virtue of their processes of immediate self-creation seems to be quite radical.

#### (b) Self-creativity as a Synthesis of Relations

In analysis, the actual entity is divisible in terms of process and character. In the preceding sub-section we discussed the former aspect, the actual entity as a self-creative

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<sup>34</sup> AI, p. 195.

<sup>35</sup> A. H. Johnson, Whitehead's Theory of Reality (2d ed.; New York: Dover, 1962), p. 41.

unit-process. As such, it is an "acting entity" or "agency which constitutes existence,"<sup>36</sup> one which is atomic, such that in actuality there is no wholly continuous process of becoming. The actual entity is a definite activity, not an underlying substrate which exists antecedently to its activity. This activity is the process of self-creation; it is the internal constitution of the actual entity.

The character of this process, however, is a synthesis of relations. The latter are 'definite bonds' of connection which Whitehead calls 'feelings' or 'prehensions.' Hence, the actual entity involves other occasions in its own constitution. The integration is directed by a final cause or aim which is inherent in the feeling itself. "It is better to say that the feelings aim at their subject than to say that they are aimed at their subject."<sup>37</sup> For the subject does not exist antecedently to the feelings; the feelings aim at their subject in that they aim at their own enjoyment. In this sense the actual entity is self-creative or causa sui: It is self-causing synthesis of definite relations.

The development of this analysis is the aim of the following section of this chapter. It constitutes an analysis of the theory of the internal relatedness of the actual occasion.

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<sup>36</sup>Leclerc, Whitehead's Metaphysics: An Introductory Exposition (London: Allen and Unwin, 1958), p. 70.

<sup>37</sup>PR, p. 260.

### 3. The Individuality of the Actual Entity

#### (a) Actual Occasions and Eternal Objects in the Process of Concrescence

The final facts to which all things in the universe are reducible are actual occasions. The actual occasion is a 'drop of experience,' a singular unit-process of becoming, and "'becoming' is the transformation of incoherence into coherence."<sup>38</sup> In other words, the actual occasion is an act of relatedness involving other occasions in its environment into a synthesis of related aspects of the singular unit which is that specific act or process of relatedness. It is a composite unit which depends on other units in order to be what it is. The actual occasion as "atom is a system of all things."<sup>39</sup>

This expresses Whitehead's rejection of the idea of completely independent, self-contained substances, subjects or atoms. "There are no single occasions, in the sense of isolated occasions. Actuality is through and through togetherness."<sup>40</sup> The togetherness of an actual entity is the synthetic relatedness whereby other actual entities are involved internally in the former. This is an "active process of receiving

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<sup>38</sup>PR, p. 30.

<sup>39</sup>PR, p. 41.

<sup>40</sup>SMW, p. 174.

objects and integrating them into one definite unity."<sup>41</sup>

It is a process or activity of the harmonization of elements into a distinct unity. This is the process of 'conrescence' which is the internal constitution of the actual entity.

This synthetic or conrescent character of the actual entity is expressed by Whitehead in another way which helps to clarify the foregoing. He states:

Any one occasion /.../ issues from other occasions which collectively form its past. It displays for itself other occasions which collectively form its present /.../. The occasion also holds within itself an indetermination in the form of a future.<sup>42</sup>

This should not be taken to imply that past and future actual entities are contained simpliciter in the present actual entity. In the latter there is a reception and synthesis of aspects of the past, and aspects of the future as components of the internal constitution of the present actual entity. A memory, for example, is in the present occurrence as an aspect of the past. The details of a past situation remembered are not there in their completeness, but general features may be retained. Anticipation and expectation are examples of what Whitehead means when he claims that the future is part of the present. Future actual entities are involved in present ones, not specifically such that they

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<sup>41</sup>Leclerc, Whitehead's Metaphysics..., p. 133.

<sup>42</sup>SMW, p. 176.

follow individually as consequences of their involvement in that actual entity, but generally such that they constitute the component of general indetermination in the present actual entity.

Whitehead explains the synthetic character of the internal process of concrescence in yet another way. This, however, requires the introduction of eternal objects.

"The fundamental types of entities are actual entities and eternal objects."<sup>43</sup> 'Eternal object' is the phrase Whitehead uses to denote what is in some sense a Platonic form. But it is a form which is closely connected with actuality. Eternal objects function in two basic ways. In both functions they connect with actual entities. Firstly, the eternal object is a mode of definition or discrimination whereby the actual entity in which it is synthesised becomes something definite or discriminate. This is the function of the eternal object in its "individual essence--whereby it is the same eternal object on diverse occasions."<sup>44</sup> Secondly, it is a mode of relatedness or potentiality whereby the actual entity in which it is synthesised, itself becomes capable of

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<sup>43</sup>PR, p. 30.

<sup>44</sup>A. N. Whitehead, "Unpublished Letter from Whitehead to Hartshorne (1936)," Alfred North Whitehead: Essays on His Philosophy, ed. G. L. Kline (Englewood Cliffs: Prentice-Hall, 1963), p. 199.

synthesis in other actual occasions. This is the function of the eternal object in its "relational essence whereby it has an infinitude of modes of entry into realization."<sup>45</sup> Eternal objects, then, are the elements of experience whereby the individual moments of experience are definite or discriminate, and relative or potential. They constitute the distinct qualitative content or character of actual entities.

One way of explaining the concrescent character of the internal process of an actual occasion is in terms of a synthesis of exemplified eternal objects. For the eternal objects when exemplified are 'ingredients' of the actual entity, elements of its internal constitution. Such eternal objects are involved in the actual entity as constitutive of the aim or purpose which is the potentiality for realization of the actual entity. This is what Whitehead refers to as the 'subjective aim' of that entity, made available by God. Also, eternal objects determined to particular past actual entities are involved as the qualitative contents or characters of those entities which become data for the present one. The latter does not contain simpliciter other actual entities in its constitution, but as we saw above, aspects of those occasions. In other words, it includes the qualitative contents or characters of other occasions.

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<sup>45</sup>Whitehead, "Unpublished Letter from Whitehead to Hartshorne (1936)," p. 199.

One role of eternal objects is that they are elements which express how any one actual entity is constituted by its synthesis of other actual entities and how that actual entity develops /... into its own individual actual existence /...<sup>46</sup>

When the internal process of the actual entity is complete, the qualitative content of that entity becomes available for synthesis in newly emerging actual entities.

The objects /qualified as such by eternal objects are the factors in experience which function so as to express that that occasion originates by including a transcendent universe of other things. Thus it belongs to the essence of each occasion of experience that it is concerned with an otherness transcending itself.<sup>47</sup>

The synthesis of internal relations, then, is analysable in terms of a felt or prehended unity of exemplified eternal objects.

There is some controversy concerning the ontological status of the actual occasion. For example, Professor Mays contends that it is a "rational reconstruction."<sup>48</sup> Professor Schmidt, on the other hand, thinks that "events are neither wholly nor partly hypothetical /... Hypothetical thinking belongs to cogitation about entities and awareness (of events) precedes cogitation."<sup>49</sup> Professor Cobb seems to support a

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<sup>46</sup>PR, p. 65.

<sup>47</sup>AI, p. 180.

<sup>48</sup>See W. Mays, The Philosophy of Whitehead (London: Macmillan, 1959), p. 103.

<sup>49</sup>P. F. Schmidt, Perception and Cosmology in Whitehead's Philosophy (New Brunswick, N.J.: Rutgers University Press, 1967), p. 45.

similar point of view when he claims that actual entities are detectable in experience, although only "by intense introspection" or by "scientific instruments."<sup>50</sup> Whitehead, however, seems to make the attempt to reconcile the opposition expressed in these points of view. On the one hand, the actual entity is a "rational reconstruction" postulated as hypothetical in the sense that it is a descriptive generalization, a category, namely the category of existence (i).<sup>51</sup> But as such, it refers to a definite feature of concrete experience, the feature of 'one-ness' as it is expressed in the category of the ultimate, the feature of individual unity. The actual entity is one of the notions in respect to which "an endeavour has been made to base philosophical thought upon the most concrete elements in our experience."<sup>52</sup> Hence, the actual entity is a tentative or hypothetical formulation or description of a definite aspect of concrete experience.

The internal constitution of the actual entity involves both relatedness and individuality. The process is one of relatedness in virtue of which other occasions enter

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<sup>50</sup>J. B. Cobb, Jr., A Christian Natural Theology: Based on the Writings of Alfred North Whitehead (London: Westminster Press, 1965), p. 40.

<sup>51</sup>See PR, p. 26.

<sup>52</sup>PR, p. 23.

into individual unity, whereby that occasion becomes something distinct. This process, which relates and unifies, is what Whitehead refers to as the 'concrecence' of the actual entity. It is a unit-activity analysable in terms of relations, which in the special terminology of Whitehead are 'prehensions.'

(b) Concrecence

The internal constitution of an actual occasion is a synthetic process of relatedness. It is the individuation or unification of diverse elements in an environment into harmonious elements in a single entity. In so far as it is a distinct unit-process involving synthesis and duration, it is epochal.

An epochal occasion is a concretion. It is a mode in which diverse elements come together into real unity. Apart from that concretion, these elements stand in mutual isolation. Thus an actual entity is the outcome of a creative synthesis individual and passing.<sup>53</sup>

This is what Whitehead calls the "microscopic" process of experience. "The microscopic meaning is concerned with the formal constitution of an actual occasion, considered as a process of realizing an individual unity of experience."<sup>54</sup>

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<sup>53</sup> AI, p. 90.

<sup>54</sup> PR, p. 151.

The basic 'stuff' of experience, then, consists of actual occasions, happenings or occurrences, which are said by Whitehead to have an internal constitution that emerges as an individual unit in virtue of a synthetic or concrescent process. This process is analysable into "modes of functioning" which Whitehead also calls 'feelings' or 'prehensions.'<sup>55</sup>

A feeling or prehension is a subordinate relation in an actual occasion. In the terminology of theoretical physics, it is a 'vector' which transforms what is 'there' into what is 'here.' In this way, the internal constitution of an actual entity refers to, and is dependent on an external world. "A prehension reproduces in itself the general characteristics of an actual entity" in that world.<sup>56</sup> Prehension is a basic element in experience.

The use of the term 'feeling' to describe positive prehensions suggests that this basis is emotional. Whitehead explicitly supports this view: "The basis of experience is emotional. Stated more generally, the basic fact is the rise of an affective tone originating from things whose relevance is given."<sup>57</sup> This view of the nature of fact is further

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<sup>55</sup>See AI, p. 176.

<sup>56</sup>PR, p. 23.

<sup>57</sup>AI, p. 176.

supported by Whitehead's comparison of prehension and concern. Concern relates and integrates. Similarly, feeling or prehension relates and integrates other occasions within the occasion to which that feeling or prehension belongs. Whitehead does not deny that emotion is an uncertain and unclear form of knowledge. On the contrary, he admits that it is dim and vague.<sup>58</sup> But as Professor Murphy explains, such experience

is taken by Whitehead as our best source of information about what is going on at times and places remote from our bodies, since, as immediately enjoyed, it feels massive and profound /.../.<sup>59</sup>

Emotion, although uncertain in the sense that it is difficult to articulate in clear detail, is regarded by Whitehead as fundamentally important. He finds no evidence to equate basic experience with clear, exact, knowledge.

A prehension is a definite act of perception. But such an act, as understood by Whitehead, does not necessarily involve consciousness, or cognition. Cognition is a complex synthesis of prehensions. It is a function of the combination of prehensions. But a simple prehension is a more primitive, more fundamental form of experience. Whitehead justifies his use of the term 'prehension,' in the following way:

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<sup>58</sup>See PR, p. 189.

<sup>59</sup>A. E. Murphy, "Whitehead and the Method of Speculative Philosophy," The Philosophy of Alfred North Whitehead, ed. P. A. Schilpp (New York: Tudor, 1951), p. 371.

The word perceive is, in our common usage, shot through and through with the notion of cognitive apprehension. So is the word apprehension, even with the word cognitive omitted. I will use the word prehension for uncognitive prehension: by this I mean apprehension which may or may not be cognitive.<sup>60</sup>

Things which have reference to other places are defined or localised as here and now in a prehension by an actual entity. These things are not contained formaliter but objectivé. They are received as 'data.' Prehension is the emotional reception and/or exclusion of data constituting the basis of perceptual experience. It is not necessarily conscious or cognitive. Prehension is at base, the non-cognitive determinate relation between actual occasions.

There are positive prehensions and negative prehensions.<sup>61</sup> The term 'feeling' is properly applied to positive prehensions. The positive prehension includes data in the experience of the actual entity; the negative prehension excludes data.<sup>62</sup> The negative prehension 'eliminates from feeling.' Nevertheless, it expresses a determinate bond. Both positive and negative prehensions contribute to the determinacy of the concrescence. The actual entity is determinate in that it definitely includes certain data,

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<sup>60</sup>SMW, p. 69.

<sup>61</sup>PR, p. 28.

<sup>62</sup>PR, p. 55.

and definitely excludes other data.

Prehensions or prehensive relations are divided into two species, physical and conceptual.<sup>63</sup> "For example, 'thirst' is an immediate physical feeling integrated with the conceptual prehension of its quenching."<sup>64</sup> The physical prehension is what Whitehead also calls the conformal feeling which is the reproduction of a feeling derived from a past actual occasion.<sup>65</sup> It appropriates or integrates data into the constitution of the actual entity of which it is an element. It prehends another past actual entity in terms of its determinate quality, that is, the entity qualified by an eternal object. That eternal object is immanent in the physical prehension of the new occasion. The physical prehension is a conformal relation in the sense that it is that whereby the present occasion partially conforms it to its past. The conceptual prehension is the inclusion of, and reaction to an eternal object in the internal constitution of the actual entity.<sup>66</sup> The eternal object which was immanent in the physical feeling now becomes transcendent in the conceptual feeling. The conceptual feeling is a feeling of a form and

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<sup>63</sup>PR, p. 28.

<sup>64</sup>PR, p. 37.

<sup>65</sup>PR, p. 290.

<sup>66</sup>See Johnson, Whitehead's Theory of Reality, p. 22.

reaction to the form. The reaction consists in rating the form up or down in respect to its role in the functioning of the actual entity. For example, the felt inclusion of the eternal object 'anger' in an actual entity is 'this definite angry feeling.'<sup>67</sup> The reaction is the feeling of relish or repugnance that accompanies 'this definite angry feeling.' It is the 'appetition' for or against the felt inclusion of the eternal object.<sup>68</sup> In this the conceptual prehension is a projective relation in the actual entity--the urge towards novelty. It relates the present actual entity to future actual entities in general. The theory of the division of prehensions into physical and conceptual species accounts for such statements of Whitehead as: The basic "emotion transcends the present in two ways. It issues from and issues towards."<sup>69</sup> The "issuing from" is the physical prehension, the "issuing towards" the conceptual prehension. Experience, then, basically involves relatedness.

The concrescence is a synthetic process of relatedness. For, as indicated above, prehensions, which are the constitutive elements of the concrescence, are relational. These prehensions fall into three distinct phases. The phases are the stages of the development of the concrescence.

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<sup>67</sup>See PR, p. 245.

<sup>68</sup>See Johnson, Whitehead's Theory of Reality, p. 23.

<sup>69</sup>See PR, pp. 37-38.

This is a teleological process, involving the realization of an aim or purpose made available by God. There are three phases in the process: (i) the responsive or conformal phase; (ii) the supplemental or novel phase; (iii) the final or determinate phase.<sup>70</sup> These phases refer to prehensions or combinations of prehensions. Any actual occasion or individual experience involves prehensions which are conformal in that they are receptive of the environment of that occasion, and supplemental in that they augment that environment with their own unique individual content. The resulting effect is a synthesis of prehensions and feelings in a determinate experience: It is a distinct and novel response to that environment. The completion of the concrescence of the actual entity is the realization of an aim or purpose which is made available to but not imposed upon the actual entity. Further, the purpose is modified during the second or supplemental phase of the process. The structure of the concrescence is teleological. According to Whitehead, this is a fact of experience, present even in the lower organisms. For example, the plant turns with sureness towards light. There is an element of non-cognitive purpose involved in this process.

In the conformal or responsive phase of the process of concrescence a datum is received from the external world.<sup>71</sup>

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<sup>70</sup>A. N. Whitehead, Modes of Thought (New York: Free Press, 1966), p. 167. In the remainder of the present undertaking this work will be referred to as MT.

<sup>71</sup>See PR, p. 278.

The datum is an aspect of the external environment of that entity constituted as a possibility of feeling. Such a datum is the 'objective content' of a nexus or group of connected actual entities, which Whitehead refers to as the 'initial datum.'<sup>72</sup> The concrescence of the given actual entity begins with the reception of the initial datum. The reception is a conformal feeling, conformal because it is the simple inheritance of aspects of the objective environment of that entity. This is the beginning of the process of self-creation or self-causation. It is self-originated because it begins with the reception of data. The reception of data is conditioned by the purpose or subjective aim provided by God, in so far as the data are made compatible for integration. The data are efficient causes only in the sense that they constitute conditions, albeit necessary conditions, of the character of the emerging actual entity.

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<sup>72</sup>See Johnson, Whitehead's Theory of Reality, p. 29. Professor Johnson points out the confusion in Whitehead's use of the phrases 'objective datum' and 'initial datum.' In some cases Whitehead identifies the two (see for example PR, p. 176). In some cases Whitehead distinguishes them. (For example in PR, p. 259, he states: "There is a transition from the initial data to the objective data effected by /.../ elimination. The initial data constitutes a 'multiplicity' /.../ while the objective datum is a 'nexus' /.../." ) The distinction seems to be that the 'initial datum' is that presented to the actual entity in question, and the 'objective datum' that selected from the 'initial datum' by the actual entity for its own use.

The conformal feeling is the definite beginning of the emergence of a definite unit of experience. It constitutes the reproduction or 're-enaction' of the past--the objective character of the past entities entering into a new subjective feeling.<sup>73</sup> The perception of the specific grey colour of a stone, for example, is a conformal feeling. The grey colour is a 'sensational quality,' or an eternal object (the universal 'greyness'), determined to a particular past entity ('this particular patch of space-time' which is 'this particular stone-shape'). It is received as 'this grey feeling' of which the objective datum is 'this particular grey colour.' The latter is re-enacted in the former which is the new subjective feeling. It is in virtue of the conformal phase of the actual entity that there is 'immanence' of one entity in another. As we shall see in the next sub-section, this amounts to a literal transfer of feeling.

The second phase of the internal process of the occasion of experience is referred to as the 'supplemental phase.' This is the phase in which the actual entity is modified. The subjective aim is transformed into a unique emotional content which is the private subjectivity of the actual entity. It is a conceptual feeling (a feeling of which the datum is an eternal object) which derives from the initial

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<sup>73</sup>See PR, p. 278.

physical feeling (a feeling of which the datum is a complete actual entity), one which modifies the latter so as to provide a new experience.<sup>74</sup> The conformal feeling, 'this grey feeling' for example, is rated or evaluated in the supplemental phase. This 'valuation,' as Whitehead calls it, may be a feeling of 'adversion' such that the colour appeals, or, it may be a feeling of 'aversion,' in which case the colour does not appeal.<sup>75</sup> The supplemental phase is the novel stage of the concrescence whereby 'this grey feeling' derives unique emotional relevance: It becomes emotionally distinct or emotionally indistinct, something to pay attention to, or to ignore. The supplemental phase is a prehensive relation within the actual occasion. This is the private or unique stage of the process of concrescence of the actual occasion.

The last phase of the concrescence is the 'satisfaction.' It is a determinate effect of the interplay of the two former phases, a specific and complete feeling or relation of feelings or prehensions. This completes the concrescent process by synthesising the other phases in a unit-effect. It is the feeling of the actual occasion as a whole, the "one concrete feeling."<sup>76</sup> In its completion, the actual entity

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<sup>74</sup>See PR, p. 31, Category of Explanation (xxvii).

<sup>75</sup>See PR, p. 31, The Category of Conceptual Valuation.

<sup>76</sup>See PR, p. 55.

is exclusive such that it does not permit any addition to the synthesis without alteration of that actual entity.<sup>77</sup> For example, the actual entity which is the particular patch of grey colour of the stone, is complete in itself in that it is determined as 'this particular grey' to which no addition may be made without altering its determinate character. The satisfaction is not the universal 'greyness' which may be present in other actual entities but the concrete feeling which is 'this particular grey' and no other, the final phase of the actual entity which no other can be. This refers to the actual entity in the phase of satisfaction, the final phase of the internal process in virtue of which the actual entity is a complete and determinate unit of experience.

The concrescence or internal process of an actual entity is an interplay of feelings and prehensions. It begins with a response; develops through a supplemental or novel phase; and completes itself in a determinate unit. It is at once, a complex of relations, and a composite individual. In this way, the concrescence of the actual entity may be understood as a synthesis of relations.

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<sup>77</sup>See PR, p. 58.

## (c) Immanence

The theory of immanence amounts to an extended discussion of the concept of the concrescence or internal relatedness of the actual entity. For it concerns how actual entities external to the actual entity in question are synthesised or integrated by the latter occasion in its own internal constitution. It is not to be confused with the theory of objectification which concerns how a given entity becomes an object for integration in other occasions. Immanence refers to internal relatedness; objectification to external relatedness.<sup>78</sup>

Whitehead criticises Professor Emmet for minimizing the role of the theory of immanence in her interpretation of Whitehead's philosophy of organism.<sup>79</sup> He claims that she overlooks, at times, its fundamentality. Professor Emmet considers the connections among occasions mainly in terms of the theory of objectification which expresses how the ideal or formal character of an actual entity is transferred to another. But the theory of immanence provides the reason for the transference of character from occasion to

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<sup>78</sup>The theory of objectification will be discussed in chapter IV.

<sup>79</sup>See A. N. Whitehead, a letter quoted by D. Emmet, Whitehead's Philosophy of Organism (2d ed.; London: Macmillan; New York: St. Martin's Press, 1966), pp. xxii-xxiii.

occasion.<sup>80</sup> Immanence, then, is more fundamental than objectification. It expresses the actual connectedness, the literal transfer of feeling from entity to entity in experience.

One actual entity is immanent in another actual entity in virtue of the physical prehension of the latter entity. There is a "transference of feeling" which involves the "partial identification of cause with effect."<sup>81</sup> This is not the representation of one occasion of experience, the cause, in another, the effect. The "feeling from the cause /.../" acquires the subjectivity of the new effect without the loss of its original subjectivity in the cause."<sup>82</sup> This does not mean that the occasion which is the cause is contained simpliciter in the occasion which is the effect. Only a single feeling, the subjective form, is transferred and "re-enacted." "Re-enaction" refers to the reproduction and integration of a feeling from another occasion with the new feelings of the given occasion. To repeat, the identification of the cause with the effect is only partial. All causality is a form of immanence or "sympathy," i.e., "feeling the feeling in another and feeling conformally with another."<sup>83</sup> The basic

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<sup>80</sup>See Whitehead, a letter quoted by Emmet, Whitehead's Philosophy of Organism, p. xxiii.

<sup>81</sup>PR, p. 278.

<sup>82</sup>PR, p. 188.

<sup>83</sup>PR, p. 188.

causal feelings, in themselves, are vague in respect to spatio-temporal definition, but emotionally intense. For example, "the low hum of insects in an August woodland" is a "vague feeling of influences."<sup>84</sup> Vagueness, however, does not undercut the importance of immanence.

There is an apparent problem with the theory of immanence in respect to the feeling transferred, namely, the subjective form.<sup>85</sup> For the subjective form refers to the subjective, inner, unique aspect of the actual entity. Yet "the subjective forms of the immediate past are continuous with those of the present."<sup>86</sup> The uniqueness of the subjective form of the past actual entity, however, is preserved in so far as it is felt "objectively as belonging to the past."<sup>87</sup> This is the feeling of otherness or externality in the present actual entity. "The feeling as enjoyed by the past occasion is present in the new occasion as datum

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<sup>84</sup>PR, p. 204.

<sup>85</sup>See Johnson, Whitehead's Theory of Reality, pp. 33-34. Professor Johnson indicates that Whitehead has two different meanings for subjective form: (1) an emotional reaction which may be a single feeling; (2) the entire inner life of the actual entity, which is a complex of feelings. The term seems viable only in sense (1) if the theory of immanence is to remain consistent as a theory of the partial identity of actual entities. The transfer of the subjective form understood in sense (2) would entail the identity of the entire inner contents of the actual entities in question.

<sup>86</sup>AI, p. 183.

<sup>87</sup>AI, p. 184.

felt, with a subjective form conformal to that of the datum."<sup>88</sup> The continuity derives from the fact that the same subjective form which is felt "objectively as belonging to the past" is "also (felt) formally as continued in the present."<sup>89</sup> The subjective form of the present actual entity is "conformal" to that of the past actual entity in that it is inclusive of the latter. Hence, a difference between the past subjective form and the present one is the revision the former undergoes in virtue of its integration with the physical feelings of the present actual entity. For example, the feeling of anger is a subjective form of a physical prehension of a datum. The anger, a second later, is sustained in the present as a datum from the past felt in the present. It is felt as 'that anger continued from before.' This interprets the notion of the re-enaction of the past in the present.

The re-enaction in the effect, of a feeling, namely, the subjective form of the cause, is the immanence of one actual entity in the internal constitution of another. Immanence, in Whitehead's theory, means partial, not complete identification of the entities of experience. The feeling which is re-enacted in the effect is also the cause's feeling. But one difference between the two is that the feeling from the cause is revised in the effect by integration or synthesis

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<sup>88</sup>AI, p. 183.

<sup>89</sup>AI, p. 184.

with other feelings which are present only in the new occasion. Another difference is that feelings in the cause, other than the one which is re-enacted are dismissed in the effect.<sup>90</sup>

The doctrine of immanence or conformation of feeling, according to Whitehead, "balances and limits the doctrine of the absolute individuality of each occasion of experience."<sup>91</sup> For it constitutes a description of the actual relatedness found in experience. Whitehead, at times refers to this as the "continuity of nature."<sup>92</sup> Yet at other times, he seems to reject such a notion by claiming that there is "no continuity of becoming."<sup>93</sup> The two statements may be reconciled, however, if it is recognised that the continuity referred to in the latter statement is understood in terms of the notion of a "uniquely serial advance,"<sup>94</sup> or unbroken 'flow of experience.' In the former statement the continuity referred to is the partial identification of complete actual occasions--specifically, the succession of objective forms.<sup>95</sup> Hence,

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<sup>90</sup>See PR, p. 278. Whitehead states, "causation is the transfer of a feeling, not of a total satisfaction."

<sup>91</sup>AI, p. 183.

<sup>92</sup>AI, p. 183.

<sup>93</sup>PR, p. 41

<sup>94</sup>PR, p. 41.

<sup>95</sup>AI, pp. 183-84.

there is only an aspect of continuity among actual entities. The continuity of experience is, perhaps, best referred to as a rhythmic relatedness, meaning that in any series of occasions of experience, there is a real continuity in respect to certain aspects of those occasions, and a real discreteness in respect to other aspects of the same occasions. "There is a flow of feeling. But the re-enaction is not perfect."<sup>96</sup> Rhythmic relatedness involves the notion of the inclusion of an aspect of one actual entity in the internal constitution of another. As such, it is the form of internal relatedness Whitehead refers to as immanence.

What is suggested above is that the theory of immanence is not to be identified with a theory of continuous becoming.<sup>97</sup> Essentially the problem is, How to conceive the concrescence of the actual entity without the pitfall of infinite regression. But as we saw above, the concrescence is not continued from one occasion to another. There is only partial identity, or identity in respect to an aspect of the entities in question. There is no complete continuity of the becoming or concrescence of these entities. The unique individuality of each, then, is preserved. The conceptual

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<sup>96</sup> PR, p. 277.

<sup>97</sup> 'Continuous becoming' is here understood to refer to an unbroken flow of actuality which develops in serial progression.

prehension which emerges from the physical prehension in an actual entity, creates the contrast which forms the purpose or directive of the whole entity--this is the unique value of that entity. In this sense, the moments of experience, although fundamentally related as explained in Whitehead's theory of immanence, involve a measure of atomism.

On the one hand, the theory of immanence has been de-emphasised by some critics.<sup>98</sup> Generally, they argue that there is no synthesis or inclusion of feeling of one actual entity by another, occurring in both in the same mode of existence. According to these critics the feeling exists formally in the cause and objectively in the effect. In other words it exists in its full immediacy in the cause, and simply as ideal character in the effect. This account, however, appears to neglect the theory of immanence in favour of the theory of objectification (to be outlined in chapter III below). Yet, as indicated at the beginning of this subsection, Whitehead explicitly rejected such an interpretation. A feeling exists formally in the cause, and objectively in the effect. Furthermore, it is difficult to see how a view, which acknowledges only Whitehead's theory of objectification to the exclusion of his theory of immanence, involves more

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<sup>98</sup>See, for example, W. Christian, An Interpretation of Whitehead's Metaphysics (New Haven: Yale University Press, 1967), p. 52; Emmet, Whitehead's Philosophy of Organism, p. 160; Leclerc, Whitehead's Metaphysics..., pp. 157-58.

than a mere copy or representative theory of perception. Again, the latter is something Whitehead rejected. For the perception involves re-enaction of what is perceived.

On the other hand, some critics seem to over-emphasise the theory of immanence.<sup>99</sup> Accordingly, the transference of feeling is conceived in such a way that the individuality of the actual entity is sacrificed. There is only an Absolute Whole, namely, the Creativity, of which the actual entities are merely attributes. One criticism of this view, is that it seems to neglect the important, indeed necessary qualification involved in Whitehead's concept of immanence. Immanence, for Whitehead, means partial identification of actual entities of experience. This involves acknowledgment of the unique individuality, the discreteness of actual entities. The re-enaction of one entity in another is not perfect. It consists in the synthesis of a feeling from the past entity with the feelings in the present entity. Thus, although the present entity includes an aspect of the past entity, it is significantly

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<sup>99</sup>See, for example, P. Destch, "The Transcendence of God in Whitehead's Philosophy," Philosophical Studies, vol. II, 1961-62, pp. 8-9; D. Bidney, "The Problem of Substance in Spinoza and Whitehead," The Philosophical Review, vol. 45, 1936, pp. 574-92; S. E. Hooper, "Whitehead's Philosophy: Actual Entities," Philosophy, vol. 16, 1941, pp. 285-305. Bidney and Hooper do not refer explicitly to the theory of immanence but their views seem to be a consequence of an over-emphasis of the transference of content from occasion to occasion.

different in respect to the addition of its own feelings to the one it appropriates from the former occasion. The past occasion also undergoes revision, becoming an objective content re-enacted in the present occasion. Another criticism of this monistic view is that it is subject to the objection that the notion of continuous becoming involves infinite regression.

The theory of immanence, explained in terms of the re-enaction of the feeling from a past actual entity in the internal process of a present actual entity, further elaborates the notion of concrescence or internal relatedness. As such, it constitutes an extension of the theory of internal relations.

#### (d) Conceptual Prehension

Conceptual prehension, as we saw above, is an element in the constitution of an actual entity. It is a determinate feeling of an eternal object. Conceptual prehension is a form of internal relatedness determinately relating an actual entity and an eternal object. The indeterminate eternal object 'anger' for example, is internally related to an actual entity when it is exemplified as 'this definite angry feeling.' The eternal object thus prehended is a mode of definiteness determining the qualitative content of the actual entity. The actual entity is 'this definite experience with this definite

quality.' The conceptual prehension also involves a reaction to the eternal object prehended. This reaction is known as the appetition for or against the eternal object as prehended. Thus, in the actual entity conceptually prehending the eternal object 'anger,' for example, there is an appetition for or against the eternal object 'anger' such that the feeling either dissipates or continues. In this way, the conceptual prehension is a determinate or internal relation of the prehending entity to prehended entities.

The functioning of an eternal object in the internal constitution of an actual entity is also referred to, at times, as the ingression of an eternal object in the actual entity.<sup>100</sup> Yet the term ingression is used elsewhere in a way which suggests it is an external relation--referring to the availability of eternal objects for conceptual prehension.<sup>101</sup> The problem of ingression and its relation to conceptual prehension is raised by Professor Johnson.<sup>102</sup> This question will be dealt with, however, in chapter IV.

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<sup>100</sup>See PR, p. 30

<sup>101</sup>See PR, p. 66.

<sup>102</sup>See Johnson, Whitehead's Theory of Reality, p. 24.

## (e) Satisfaction

The actual entity is an individual unit of experience. It is not, however, a particular thing which excludes relations to other particular things. It is a synthetic unit of relations. The 'satisfaction' is the completion of the internal process of relatedness whereby the actual entity becomes such an individual.

The satisfaction is the feeling of the synthetic or composite unity of the discrete internal components of the actual entity. It constitutes the completion of the concrescence, of the actuality: It is the "perishing of immediacy."<sup>103</sup> This refers to the final feeling of the actual entity in question, the feeling of that entity as a whole<sup>104</sup> --the one concrete feeling.<sup>105</sup>

Whitehead, however, employs the term 'satisfaction' in equivocal ways. As Professor Johnson points out, the satisfaction is identified with the "objective constitution of an actual entity in contrast with the formal constitution --i.e., its inner life as a process of concrescence."<sup>106</sup>

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<sup>103</sup>PR, p. 102.

<sup>104</sup>See PR, p. 178.

<sup>105</sup>See PR, p. 55.

<sup>106</sup>Johnson, Whitehead's Theory of Reality, pp. 49-50.

Whitehead, on many occasions, seems to support this view.

For example, he states:

The terminal unity of operation, here called the 'satisfaction,' embodies what the actual entity is beyond itself /.../. In Descartes' phraseology, the satisfaction is the actual entity considered as analysable in respect to its existence 'objective.' It is the actual entity as a definite, determinate, settled fact, stubborn and with unavoidable consequences /.../. Its own process, which is its own internal existence, has evaporated, worn out and satisfied; but its effects are all to be described in terms of its 'satisfaction.'<sup>107</sup>

In another context, he makes the same point in a different way:

/The/ satisfaction is the attainment of something individual to the entity in question. It cannot be construed as a component contributing to its own concrescence; it is the ultimate fact, individual to that entity. The notion of 'satisfaction' is the notion of the 'entity as concrete,' abstracted from the 'process of concrescence'; it is the outcome separated from the process thereby losing the actuality of the atomic entity which is both process and outcome.<sup>108</sup>

Accordingly, the satisfaction and objective character of the actual entity seem to be identical. Whitehead argues that "the satisfaction can only be discussed in terms of the usefulness of that entity"<sup>109</sup>--that is, in terms of the objectification of the actual entity in, or its external relation to other actual entities. This would seem to place the notion of satisfaction under the theory of external relations.

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<sup>107</sup>PR, p. 257.

<sup>108</sup>PR, p. 102.

<sup>109</sup>PR, p. 102.

But this standpoint is not coherent with what appears to be another sense of the term 'satisfaction.' For example, the following view seems to be generally held in Process and Reality:

/'The 7 concrescence is /... 7 nothing else than the 'real' internal constitution of the actual occasion in question. The analysis of the formal /'real internal' 7 constitution of an actual entity has given three stages in the process of feeling: (i) the responsive phase, (ii) the supplemental phase, and (iii) the satisfaction.<sup>110</sup>

This statement, in effect, looks as if it is in direct contradiction with the one cited above indicating that the satisfaction cannot be construed as a component of its own concrescence. Indeed, taken by itself, it specifies that the satisfaction is a component in the formal constitution of the actual entity, namely, its final stage of development. However, the satisfaction is not a component in the sense that the other feelings are components, but it is the interrelation of those components whereby their synthesis is achieved. The satisfaction is the concrete feeling which is this synthesis. It is the individual unity of the internal constitution of the actual entity--the unconscious feeling of its particular individuality.

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<sup>110</sup>PR, pp. 244-45.

The problem which the concrescence solves is, how the many components of the objective content are to be unified in one felt content with its complex subjective form. This one felt content is the 'satisfaction,' whereby the actual entity is its particular individual self; to use Descartes' phrase, 'requiring nothing but itself in order to exist.' In the conception of the actual entity in its phase of satisfaction, the entity has attained its individual separation from other things; it has absorbed the datum, and it has not yet lost itself in the swing back to the 'decision' whereby its appetition becomes an element in the data of other entities superseding it.<sup>111</sup>

This text distinguishes "the objective content" from the "one felt content" which is identified as the 'satisfaction.' In other words, although in the satisfaction the actual entity has attained concrete "individual separation," it "has not yet lost itself as" an objective "element in the data of other entities superseding it." The satisfaction is the feeling of concrete individuality which is prior to the acquisition of objective character. This interpretation is supported by Whitehead's comparison of the actual entity in the phase of satisfaction with Descartes' notion of substance as 'requiring nothing but itself in order to exist.' For as he indicates elsewhere, this refers to formal existence: "In the older phraseology employed by Descartes, the process is what the actual entity is in itself, 'formaliter.' The terms 'formal' and 'formally' are here used in this sense."<sup>112</sup> (The phrase,

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<sup>111</sup>PR, p. 178. (Underlining mine.)

<sup>112</sup>PR, p. 257. (Underlining mine.)

'requiring nothing but itself in order to exist' and 'in itself,' are taken here, to be equivalent.) The satisfaction is the one concrete feeling, the formal constitution of the actual entity unconsciously felt as a whole.

'Process' is the rush of feelings whereby second handedness attains subjective immediacy; in this way, subjective form overwhelms repetition, and transforms it into immediately felt satisfaction, objectivity is absorbed into subjectivity.<sup>113</sup>

According to the interpretation expressed here, the notion of satisfaction is part of the theory of internal relations, which explains why it is sometimes referred to as the "subjective satisfaction."<sup>114</sup>

The satisfaction is the "determinate individualisation" of the actual entity.<sup>115</sup> It is the actual entity complete in itself neither requiring nor tolerating any addition to its unity. This is the "element of exclusive limitation" or "definiteness essential for the synthetic unity of the actual entity."<sup>116</sup> The satisfaction is a definite unity of feeling. All indefiniteness or indetermination has evaporated. In the phase of satisfaction "potentiality becomes reality; and yet retains its message of alternatives which

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<sup>113</sup>PR, p. 179. (Underlining mine.)

<sup>114</sup>See PR, p. 66.

<sup>115</sup>See PR, p. 179.

<sup>116</sup>PR, p. 59.

the actual entity has avoided."<sup>117</sup> The potentiality is felt as the definiteness of the individual unity of the concrescence, whereby the actual entity is just 'this exclusive experience.'

The satisfaction is the completion of the synthesis or togetherness of the internal relations of the actual entity. It is the "final unity" realized by the interplay of the component relations. In other words, the satisfaction is the internal process of the actual entity realized in the concrete interrelatedness of other entities. It is the final unity of those relations whereby other entities contribute to the present actual entity. Without any single one of these relations there would not be 'this particular satisfaction;' and the addition of other relations would alter 'this particular satisfaction.'<sup>118</sup> The synthesis is achieved by the interrelation of entities. The satisfaction is the one complex feeling which is this interrelationship.

The actual entity, then, is a felt integration of other items of experience. It is a synthetic or composite individual, which involves relatedness to other actual entities, and the atomicity of its own determinate unity. This is not to say that the other entities are completely contained in

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<sup>117</sup>PR, p. 173.

<sup>118</sup>See PR, p. 58.

the given entity. Internal relatedness consists in the prehensive or felt synthesis of aspects of those other entities. This is the gist of the theory of immanence: that the internal relatedness of a given actual entity involves only partial inclusion of other entities. Thus, the notion of internal relatedness does not obliterate, but complements the notion of the synthetic individuality of actual entities. "Every actual thing is something by reason of its activity; whereby [^...\_] its individuality consists in its synthesis of other things so far as they are relevant to it."<sup>119</sup> The notion of the actual entity as a synthesis, puts together the notions of relatedness and individuality.

#### 4. Summary and Conclusion

The category of the ultimate is the most general expression of the doctrine of universal relativity. It specifies the ultimacy or universality of relatedness. There are diverse kinds of entity involved, the one, the many, and creativity. These three notions complete the category of the ultimate. It identifies the universal relatedness of experience in terms of these three notions.

The theory of internal relations elucidates an aspect of the category of the ultimate. For it is the elaboration

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<sup>119</sup>A. N. Whitehead, Symbolism: Its Meaning and Effect (Reprint; New York: Capricorn Books, 1959), p. 26.

of the notion of individual unity, which, in the language of the category of the ultimate, is the one, singular entity. This notion expresses a relation, namely, conjunctive unity. The latter is, in effect, the individual unit of experience which Whitehead elsewhere calls the 'actual entity.' The notion of the actual entity is developed in the theory of internal relations as the synthetic process of relatedness. In this way, the theory of internal relations constitutes the analysis of the notion of the one, or conjunctive unity in the category of the ultimate.

This theory is an analysis of a fundamental principle in Whitehead's ontology, namely, the ontological principle. The ontological principle is a basic feature of actuality or experience. Its expression constitutes a 'definition of actuality' in terms of actual entities. The ontological principle embodies the individual character of experience. It is analysed in terms of the notion of concrescence or synthetic process of relatedness. The theory of internal relations constitutes full development of this notion.

The concrescence is the internal process of the actual entity. It is analysable in terms of a synthesis of prehensive relations. These are the internal relations of the entity connecting it with other entities. This connection is essential to the actual entity: The latter is a synthesis of the relations in which the connection consists. The internality

of the actual entity does not presuppose a subject existing prior to the process of relatedness. The occurrence of the synthesis is the internal constitution of the entity. It is a synthetic, individual unit of experience.

It is beyond the scope of this dissertation to consider in detail the problem of the ontological status of the ontological principle. For the main task herein in respect to the ontological principle, is to disclose what its role is in relation to the category of the ultimate and the doctrine of universal relativity.

It should be noted, however, that there is some controversy as to whether the ontological principle is in fact a principle of ontology. According to Professor Neville, the ontological principle is a mere "cosmological principle, since it deals with the constitution of particularities of this cosmos."<sup>120</sup> He argues that it fails to account for why there are those particular decisions and those particular unities which are formed in experience. Professor Garland argues that creativity is the ultimate principle of Whitehead's ontology, accounting for both unity and novelty in the universe. He contends that "at best" the ontological principle is "a methodological rule governing the categories of

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<sup>120</sup>R. C. Neville, "Whitehead on the One and the Many," The Southern Journal of Philosophy, vol. 7, 1969-70, p. 388.

explanation and obligation" and that it "is logically subordinate to the principle of creativity."<sup>121</sup> Professor Leclerc, on the other hand, takes an opposing stand and argues that the ontological principle is the ultimate principle of Whitehead's ontology, since, in his estimation, it expresses the nature of 'being' or 'existence.'<sup>122</sup> Hence, there is a radical diversity of opinion regarding the ontological status of the ontological principle.

The concern with the ontological principle in this dissertation is secondary. But it should be indicated that a certain standpoint is taken in respect to the problem of its ontological status, although no detailed argument is presented directly to counter those of Neville and Garland.<sup>123</sup>

According to this standpoint the ontological principle is not the ultimate principle of Whitehead's ontology but it is one of the principles suggested in the category of the ultimate. It is part of the working hypothesis of this dissertation that the category of the ultimate expresses three notions, the one, the many, and creativity, which, developed respectively in terms of the theory of internal relations, the theory of external relations and the doctrine

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<sup>121</sup>W. J. Garland, "The Ultimacy of Creativity," The Southern Journal of Philosophy, vol. 7, 1969-70, p. 369.

<sup>122</sup>Leclerc, Whitehead's Metaphysics..., p. 23.

<sup>123</sup>See chapter I, section 1 above, for an argument against Leclerc on this issue.

of process, constitute analysis of three principles in the ontological sense. These three principles in corresponding order are, the ontological principle, the principle of relativity, and the principle of process. Each is a distinct feature of experience, the ontological principle, the feature of individual unity; the principle of relativity, the feature of plurality or multiplicity; the principle of process, the feature of creative advance. The principle of process or creativity consists in the interrelation of the other two principles, and therefore constitutes the ultimate character of experience. It is expressed in the category of the ultimate as the ultimate principle of Whitehead's ontology.

The ontological principle, nevertheless, is a principle in the ontological sense, because it is a feature of experience referred to in explanation or analysis. Hence, it is not a rule which directs such analysis, but the experiential condition the analysis is invoked to explain. Neither is the ontological principle the rational ground explaining 'why experience must be such and such.' The analysis of the ontological principle is part of the description of 'how it is.' The analysis of the ultimate principle constitutes the full description of experience.

It should be repeated that these comments are intended to express only a standpoint. They should not be understood as constituting a direct counter-argument to the views

of Neville and Garland. It is hoped that this standpoint, however, will be vindicated by the present dissertation. But the concern herein is primarily with the clarification and elaboration of the doctrine of universal relativity and only secondarily with the ontological principle--only in so far as it relates to that doctrine.

## CHAPTER IV

### THE THEORY OF EXTERNAL RELATIONS

The category of the ultimate is the most general statement of the doctrine of universal relativity (to be distinguished in this chapter from the principle of relativity). It expresses the ultimacy or universality of the relatedness of experience in terms of the notions of the one, the many, and creativity. As we saw in chapter III, the theory of internal relations consists in the elaboration of the notion of singularity or conjunctive unity in experience. In the present chapter, we will deal with the theory of external relations which involves the elaboration by analysis, of the notion of the many, or plurality in experience. As such, this theory develops an aspect of the category of the ultimate and the doctrine of universal relativity.

The theory of external relations amounts to an analysis of the principle of relativity in Whitehead's metaphysics. The latter embodies a basic feature of experience, the fact of the many, a disjoined plurality of entities. This notion of plurality may be expressed in terms of the objective diversity among entities.

1. Statement of the Principle of Relativity

(a) The Principle of Relativity as Principle  
of External Relations

The formal categoreal statement of the principle of relativity is given in category of explanation (iv) in Process and Reality:

That the potentiality for being an element in a real concrescence of many entities into one actuality, is the one general metaphysical character attaching to all entities, actual and non-actual; and that every item in its universe is involved in each concrescence. In other words, it belongs to the nature of a 'being' that it is a potential for every 'becoming.' This is the principle of relativity.<sup>1</sup>

The principle of relativity states that the actual entities in experience involve the potentiality for transference to other actual entities. It refers to a form of relatedness in experience. But the potentiality whereby the relatedness is effected, is not the actual process of becoming; it is the possibility of such a process. For Whitehead, 'being' is possibility, becoming 'actuality.' Thus, in the statement of the principle of relativity there is a shift of emphasis from the internal relatedness of the individual actual entity, to another form of relatedness.

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<sup>1</sup>PR, p. 27.

Whitehead states that "the reformed subjectivist principle adopted by the philosophy of organism is merely an alternative statement of the principle of relativity (the fourth Category of Explanation)."<sup>2</sup> This is helpful in understanding what kind of relatedness the principle of relativity embodies. For the reference to a 'reformed subjectivist principle' in the citation immediately above, suggests that Whitehead is presenting an account which is contrary to the view that all things in experience are mere qualifications of minds. According to Whitehead, subjectivism consists in "the belief that the nature of our immediate experience is the outcome of the perceptive peculiarities of the subject enjoying the experience."<sup>3</sup> The reformed subjectivist principle is stated thus, "that apart from the experience of subjects there is nothing, nothing, nothing, mere nothingness."<sup>4</sup> This is a rather unclear statement of the principle in light of the preceding statement taken from Science and the Modern World. For it seems simply to re-state the subjectivist principle. At best, it seems to involve reference to the ontological principle and the fundamentality of internal relatedness. Professor Leclerc, however, points

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<sup>2</sup>PR, p. 193.

<sup>3</sup>SMW, p. 88.

<sup>4</sup>PR, p. 194.

out that the reformed subjectivist principle asserts that "the 'content' of experience is not a purely private qualification of the mind, but is constituted by the immanence of external things."<sup>5</sup> This may be derived from Whitehead's statement that "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."<sup>6</sup> In other words, there is qualification of one actual entity by another actual entity which is external to it, a qualification in terms of which the two are related. The principle of relativity, then, as an alternative statement of this notion, seems to embody the notion of the relatedness of an actual entity to others in terms of entities which are external to the former.

The principle of relativity is a narrower concept than the doctrine of universal relativity. The former, as indicated above, refers to a form of external relatedness, or relatedness in terms of entities or objects which are external to the actual entities related. Concerning universal relativity, Whitehead states:

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<sup>5</sup>I. Leclerc, Whitehead's Metaphysics: An Introductory Exposition (London: Allen and Unwin, 1958), p. 121.

<sup>6</sup>PR, p. 193. (Underlining mine.)

The principle of universal relativity transverses Aristotle's dictum '(A substance) is not present in a subject.' On the contrary, according to this principle an actual entity is present in other actual entities. 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 entity. The philosophy of organism is mainly devoted to the task of making clear the notion of 'being present in another entity.'<sup>7</sup>

The concept of universal relativity, as stated here, includes both the external relatedness embodied in the principle of relativity and the internal relatedness embodied in the ontological principle. For the phrase 'being present in another entity' may be understood in terms of 'being a synthesis of other entities' which refers to the internal relatedness of the ontological principle. The same phrase may also be understood as 'being objectified in other entities,' which refers to the external relatedness of the principle of relativity. The principle of relativity, then, is not to be confused with the wider doctrine of universal relativity. The latter refers to a more comprehensive form of relatedness than the former, and is inclusive of it.

Category of explanation (iv), which is cited above at the beginning of this sub-section, is what is meant by 'the principle of relativity' in this dissertation. The wider notion referred to immediately above is what is meant by 'the

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<sup>7</sup>PR, p. 65.

doctrine of universal relativity.' The most general statement of this doctrine is the category of the ultimate. The present chapter amounts to a discussion of the principle of relativity understood as embodying an aspect of the relatedness described in the doctrine of universal relativity. In other words, it is the consideration of the principle of relativity as principle of external relations.

(b) External Relations

An external relation is an indeterminate relation.<sup>8</sup> The notion presupposes the concept of possibility or potentiality. In application to an entity, external relatedness refers to what Whitehead also calls the 'patience' of that entity for determination in other entities.<sup>9</sup> A 'patient' entity is a potentiality, or an entity which possesses a measure of potentiality. Potentiality relates indeterminately or 'externally' in virtue of its abstractness. Thus, 'book-ness,' which is a potentiality, is externally related to actualities which are books, relating them in an indeterminate or indefinite way. Prehension is the concrete activity or process whereby the indeterminacy is resolved. 'Book-ness,' exemplified in prehension, becomes 'this book prehended in this place at this time under these circumstances.' 'Book-ness'

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<sup>8</sup>See SMW, p. 160.

<sup>9</sup>See SMW, p. 160.

as a potentiality externally related to actual specific books, when exemplified or determined to a particular book is internally related to that actuality: 'Bookness' becomes 'this book with these relations.' 'This book,' as such, is dependent for its concrete definiteness upon 'these relations.' The latter are the particular or determinate relations which are essential to the entity in question; such relations are internal relations. External relations are non-essential in virtue of their indeterminacy. For example, 'this particular book' determined as such by 'these particular relations' does not acquire a greater degree of determination in virtue of its being characterised by the universal 'book-ness.' 'Book-ness' does not determine 'this book with these relations' as such, but as 'a book' whereby it is distinguished, but only indeterminately, such that it relates generally to other items of experience. This illustrates the notion of the external relation. The notion may be clarified by distinguishing two factors that it involves. The external relation signifies (1) a distinction or disjunction between entities, and (2) a general relation between the same entities. This may be developed in respect to what Whitehead calls the 'two-way functioning' of eternal objects. For external relatedness is abstract or general relatedness, relatedness in terms of forms or eternal objects.

Whitehead emphasised the importance of forms or eternal objects even subsequent to severe criticisms which the

notion of the eternal object had been subjected to, especially by Professor Hall.<sup>10</sup> In a letter to Professor Hartshorne in 1936, Whitehead writes:

There is one point as to which you--and everyone--misconstrue me--obviously my usual faults of exposition are to blame. I mean my doctrine of eternal objects. It is a first endeavor to get beyond the absurd simple-mindedness of the traditional treatment of Universals.<sup>11</sup>

Whitehead, then, does not equate the eternal object with the universal. For the traditional conception of the latter is misleading since it maintains a strict antithesis between universal and particular. But

every so-called 'universal' is particular in the sense of being just what it is, diverse from everything else; and every so-called 'particular' is universal in the sense of entering into the constitutions of other actual entities.<sup>12</sup>

The eternal object acts as a mode of definiteness, which infuses the actual entity with the definiteness or specificity it possesses. On the other hand, it also functions as a mode of potentiality in accordance with which the actual entity becomes potential for synthesis in other actual entities. In this latter function, the eternal object is a mode of relatedness. In either function the eternal object is a

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<sup>10</sup>See E. W. Hall, "Of What Use are Whitehead's Eternal Objects," The Journal of Philosophy, vol. 27, 1930, pp. 29-44.

<sup>11</sup>A. N. Whitehead, "Unpublished Letter from Whitehead to Hartshorne (1936)," Alfred North Whitehead: Essays on His Philosophy, ed. G. L. Kline (Englewood Cliffs, New Jersey: Prentice-Hall, 1963), p. 199.

<sup>12</sup>PR, p. 62.

vital aspect of experience. The notion accounts for a certain definiteness and a certain relatedness inherent in experience.

Let us first deal with factor (1) of the notion of the external relation. It involves the distinction or disjunction of one actual entity from another in virtue of the functioning of an eternal object as a mode of definiteness in the former. The eternal object in this function, is that whereby the actual entity is generally determined as a definite object, or as possessing definite objective character. For example, the eternal object 'book-ness,' exemplified as mode of definiteness, generally determines an actual entity, which is 'this particular book with these particular relations,' as 'a book,' and not 'a table.'

Let us now deal with factor (2) of the notion of external relation. It involves the relatedness of one actual entity to another in virtue of the functioning of an eternal object as a mode of potentiality. The eternal object in this function is that whereby the actual entity is generally related, in terms of its objective character, to other entities. For example, the actual entity which is 'this particular book with these particular relations' is generally related to the actual entity which is 'that particular book with those particular relations' in virtue of its 'book-ness,' in virtue of its being 'a book.'

Hence, by way of factor (1) the notion of external relation involves a measure of determination, and by way of factor (2) a measure of indetermination, or the capacity for further determination. Understood in this way, the notion of the external relation may be referred to as the relation of objective diversity. The term 'objective diversity' is intended to signify distinction and relation by objective character. It interprets the notion of the plurality or 'many-ness' presented in the category of the ultimate.

Consideration of the question of the pluralistic character of Whitehead's theory of reality may help to exhibit the significance of the notion of external relatedness in his metaphysics. Whitehead is quite definitive about his inclination towards a pluralistic interpretation: "Spinoza bases his philosophy upon the monistic substance, of which the actual occasions are inferior modes. The philosophy of organism inverts this point of view."<sup>13</sup> But pluralism is not entailed by the ontological principle: "The principle of relativity is the axiom by which the ontological principle is rescued from issuing in extreme monism"<sup>14</sup> The ontological principle embodies the character of experience which is described in terms of the theory of the actual entity. But

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<sup>13</sup>PR, p. 98.

<sup>14</sup>PR, pp. 171-72.

it does not refer to a plurality of such entities. Professor Leclerc argues

that the ontological principle is the affirmation that some entities are 'actual,' or that at least one entity is 'actual.' The ontological principle is therefore consistent with both pluralism and monism. But neither can be held to be a necessary implication of the ontological principle to the exclusion of the other as a matter of sheer logical entailment.<sup>15</sup>

The ontological principle affirms simply that actuality consists in the process of the internal relatedness of the actual entity. Indeed, it has been argued that the ontological principle, or principle of internal relations, is incompatible with what has been referred to as the 'Principle of Pluralism.'<sup>16</sup> Professor Alston claims that the actual entities, in accordance with the principle of internal relatedness, includes or 'contains' other actual entities as data in its own constitution. On the other hand, in his estimation, the so-called 'Principle of Pluralism' expresses the plurality of actual entities, as finite, limited, exclusive, diverse, and synthetic. He concludes that the principle of internal relatedness and the principle of pluralism are incompatible because the former "says that an actual entity contains all

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<sup>15</sup>Leclerc, Whitehead's Metaphysics..., p. 55.

<sup>16</sup>See W. P. Alston, "Internal Relatedness and Pluralism in Whitehead," The Review of Metaphysics, vol. 5, 1952, pp. 535-58.

entities to which it is related /.../. And this is a denial of the Principle of Pluralism."<sup>17</sup>

The reply to this objection is in two parts. (1) According to chapter II, section 3, especially sub-section (c) above, in which Whitehead's theory of immanence was discussed, it was contended that in accordance with the ontological principle, interpreted there as principle of internal relations, any given actual entity does not contain simpliciter all the actual entities to which it is related. It includes only concrete aspects of those entities to which it is related, parts of their concrete content. The theory of immanence states, not that a given actual entity contains or is identified with all its prehended entities, but that it partially includes, or is partially identified with those entities; that the given entity is identical with other entities in respect to certain concrete details. Contrary to the conclusion of Professor Alston, this interpretation entails that the ontological principle, analysed in terms of the theory of internal relations, does not preclude the element of discreteness or disjunction which is a basic requirement of a pluralistic philosophy.

(2) This element of discreteness or disjunction is embodied in the principle of relativity, but this is not,

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<sup>17</sup>Alston, "Internal Relatedness and Pluralism in Whitehead," p. 543.

strictly speaking, a 'Principle of Pluralism.' Such a principle as the latter is not articulated by Whitehead in the categoreal scheme of Process and Reality. The actual entity, as we saw, is not wholly discrete or atomic. But the notion of the principle of relativity seems to entail a form of pluralism. For it expresses the general distinction or determination, or partial disjunction of actual entities. Yet it also expresses their general relatedness. Accordingly, actual entities are generally distinct and generally related in virtue of their ideal character (qualification by eternal objects).

The principle of relativity is the ontological feature analysed in terms of the theory of external relations. This theory develops the fundamental notion of the disjunctive relation (the 'disjunctive diversity' of the category of the ultimate) or what is referred to in this dissertation as the concept of objective diversity. The disjunctive relation involves both general relatedness and general distinction: The relation which consists in the mode of distinction or diversification in virtue of the eternal object which generally relates and generally determines or distinguishes.

In the subsequent sections of this chapter the notion of external relatedness will be more fully discussed in terms of some of the more technical terms of Whitehead's metaphysics as it is presented mainly in Process and Reality.

## 2. Objective Relatedness and Diversity Among Actual Entities

### (a) The Concept of Relativity in Whitehead's Early Works

The principle of relativity is commonly associated either with explanations of space-time in Einstein's theoretical physics, or with a purely subjectivist philosophy. In An Enquiry Concerning the Principles of Natural Knowledge (1919), The Concept of Nature (1919), and the Principle of Relativity (1922), Whitehead develops his own theory of relativity mainly in terms of its application to the notion of space-time, although it is distinguished from both Einsteinian relativism and subjective relativism. But the present discussion is not concerned with the detailed account of Whitehead's concept of relativity in its application to space-time as it is presented in the aforementioned works. Whitehead's early views, and the distinction he draws between his own and the other views will be outlined in an attempt to clarify the principle of relativity as it functions in the metaphysics of Process and Reality. This paper will not consider in exhaustive detail the development of Whitehead's theory of relativity. The present chapter is a study of the concept of relativity which is understood to denote a principle in Whitehead's ontology.

Whitehead acknowledges, with modesty and humility, the originality and greatness of Einstein's relativity theory.

He claims that it woke him from a 'dogmatic slumber.' So he seems to be well aware of the significant influence on his own intellectual development of Einstein's theory. He does not, however, completely accept Einstein's view; he reinterprets the concept of relativistic experience.

In Whitehead's early works mentioned above, the concept of relativity is discussed within the framework of the philosophy of natural science, especially in terms of its application to a theory of space-time. Hence, he argues in the first of these works that "on the old (Einstein's) theory of relativity, Time and Space are relations between materials; on our theory, they are relations between events."<sup>18</sup> In spite of the limitations of the subject matter in this statement, it reflects the basis of what Whitehead conceived as the general difference between his own and Einstein's theory of relativity. Einstein apparently identified the fundamental entity as a material body. According to Whitehead, in these early works, there is no such thing as matter or a static and absolute substratum existing separately from, or behind the experience revealed in sense-awareness. Whitehead analyses not only space-time, or the relations between (the so-called material) entities, but also the entities themselves in terms of a relativistic theory. As a result, he arrives

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<sup>18</sup>PNK, p. 26.

at the notion of the event as the fundamental entity of experience, the event which is a relative factor or passing moment of experience with spatio-temporal extension.<sup>19</sup> This notion in the early works replaces that of the atomic particle of matter. Professor Schmidt points out that

the basic difference between Whitehead and Einstein lay in their use of different fundamental entities. Whitehead maintained that Einstein's bodily object is a derivative not a fundamental entity.<sup>20</sup>

For Einstein, then the fundamental entity of experience is the material body, for Whitehead the event.

A more specific difference between the theories of the two thinkers relates to the notion of simultaneity. Professor Burgers explains Einstein's view in this way:

Einstein showed that /the/ notion of simultaneity cannot be supported by any possible experiment /.../. Any attempt to define simultaneity with reference to observers at a certain distance from each other involves a margin of uncertainty equal to the time interval needed by light (or electro-magnetic waves) to go from one observer to the other or to return from the second to the first observer /.../. The notion of an indubitable 'now' valid here and everywhere at the same time is thus lost.<sup>21</sup>

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<sup>19</sup>See A. N. Whitehead, The Concept of Nature (Cambridge: Cambridge University Press, 1920), p. 52. In the remainder of the present undertaking, this work will be referred to as CN.

<sup>20</sup>P. F. Schmidt, Perception and Cosmology in Whitehead's Philosophy (New Jersey: Rutgers University Press, 1967), p. 30.

<sup>21</sup>J. M. Burgers, Experience and Conceptual Activity: A Philosophical Essay Based upon the Writings of Alfred North Whitehead (Massachusetts: M.I.T. Press, 1965), p. 80.

According to this view, the temporal location of events in space-time is dependent on the constant velocity of light. Since light takes time to travel through space, the temporal location of events in space is contingent. Hence, no two events occur at the same time (simultaneously), because the time-coordinates are variable as determined in relation to the velocity of light.

Whitehead argues that this view fails to provide a basis for definite rules of measurement.<sup>22</sup> For if, to agree with Einstein, spatio-temporal location involves a separate measure system for each event in space-time, then each measurement taken will be different from every other. In Whitehead's estimation, Einstein's theory of relativity entails a radical contingency among the events in experience. This, according to Whitehead, is untenable, because it is contrary to fact: We observe experience as partially but not wholly contingent, and we perform valuable and effective functions with measure-systems which are applied on a universal scale.

In Whitehead's early view, there is an element of uniformity which is fundamental to experience, an element whereby measurement is possible. This element is what

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<sup>22</sup>A. N. Whitehead, "Einstein's Theory: An Alternative Suggestion," The Interpretation of Science, ed. A. H. Johnson (Indianapolis and New York: The Bobbs-Merrill Company, 1961), p. 134.

Whitehead refers to as the 'significance' of events, the experiential relatedness which constitutes the basis of the uniform structure of space-time. The event, which is the fundamental entity of experience in the early works, is related to other events in virtue of its character whereby it is "an entity as a relation without further discrimination of quality."<sup>23</sup> In this way, the event is generally related via its potentiality for further discrimination in other events. This is its significance to other events.

The notion of significance is the basis of the difference between Whitehead and Einstein in respect to the simultaneity of events. For "simultaneity is a definite natural relation."<sup>24</sup> It is the relation among events in the immediate occurrence of a "duration" or a totality of events-- which "is now for sense-awareness."<sup>25</sup> It is the definite correlation, in terms of immediacy, of events. Such correlation is an example of the basic relatedness which is found in experience: "Simultaneity is an ultimate fact in nature."<sup>26</sup> In effect, then, Whitehead's objection to Einstein's theory of relativity is that it explains away a fact of experience, the fact of simultaneity.

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<sup>23</sup> CN, p. 51.

<sup>24</sup> CN, p. 53.

<sup>25</sup> CN, p. 53.

<sup>26</sup> CN, p. 56.

The preceding discussion of Whitehead's early view of the concept of relativity in contrast to Einstein's, is relevant to the present undertaking in that it shows how Whitehead divorces himself from a conception which is inordinately emphatic of the contingency in experience. Whitehead emphasises the relatedness or connection in the concept of relativity. This element of relatedness is a fact of experience, and the basis of the uniform structure of space-time.

The term 'subjective relativism' may be understood as any view according to which all knowledge and perception is dependent on, or definable in relation to an observer or a mind. Professor Murphy argues that Whitehead consistently denies such a form of relativism.<sup>27</sup> He contends that Whitehead's is an "objective relativism" which denotes that relatedness is a fundamental aspect of experience, and not an abstract form of unity which derives from the subjectivity of an observer, or a mind. "Objective relativism," in Professor Murphy's estimation, is entailed by the notion of the fundamentality of events. An event, the passing unit of experience with spatio-temporal extension, involves relatedness to, or connection with other events: This is its 'significance.' These events and this relatedness are objective facts. They

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<sup>27</sup>A. E. Murphy, "Objective Relativism in Dewey and Whitehead," The Philosophical Review, vol. 37, 1928, pp. 574-86.

constitute the objective relatedness of experience.

Some of Whitehead's early texts seem to support this interpretation. For example, in an essay written in 1922 he states:

Relations observed are in every case dependent on what happens to the body of the observer within nature. All the relations disclosed are relations between natural entities, and the conditions which determine the choice are also particular characters of relations between natural entities. The whole set of conditions lies within nature and yields no ground for impinging its reality.<sup>28</sup>

In other words, any observable event, rather than being dependent for its characterisation on the observer's mind, is dependent on its relations to other events, among which are human bodies.<sup>29</sup> For example, the entity which is 'the crimson cloud' possesses character in virtue of the relations it bears to other events, and bodies of observers. The concrete definiteness of its character is derived from an observer only in the sense that the character of the entity is peculiar in terms of the immediacy of its occurrence in a moment of sense-awareness in the observer's body. The entity is 'this particular crimson cloud with these particular

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<sup>28</sup>A. N. Whitehead, "The Idealistic Implication of Einstein's Theory," The Interpretation of Science, ed. A. H. Johnson (Indianapolis and New York: The Bobbs-Merrill Company, 1961), p. 147.

<sup>29</sup>See A. N. Whitehead, "The Philosophical Aspects of the Principle of Relativity," The Interpretation of Science, ed. A. H. Johnson (Indianapolis and New York: The Bobbs-Merrill Company, 1961), p. 140.

features here and now' for one observer, and 'that particular crimson cloud with other particular features here and now' for another observer. In other words, the definite character of the entity (the character in terms of its concrete detail) is provisional or contingent.<sup>30</sup>

However, the general character of the event or entity, is an objective fact, a fact which is uniform throughout all nature, in virtue of the systematic relatedness of nature. Systematic relatedness derives from the natural significance of events. An entity may be generally characterised as 'a crimson cloud,' for example, by virtue of a system of relations to other items in its environment, relations expressed in such terms as its colour, height, density, etc., all of which it signifies with one degree of relevance or another, in being what it is. The entity which is 'a crimson cloud' remains 'a crimson cloud' because, as such, it signifies this system of relations whereby it is uniform throughout nature. This illustrates what Whitehead calls the "uniform significance of events."<sup>31</sup> It is the objective relatedness of experience.

This view should be qualified. For Professor Murphy's rubric 'objective relativism,' and Whitehead's terms 'body'

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<sup>30</sup>See Whitehead, "The Philosophical Aspects of the Principle of Relativity," pp. 140-41.

<sup>31</sup>Whitehead, "The Philosophical Aspects of the Principle of Relativity," p. 140.

and 'nature,' in the present context are all misleading in that they suggest a materialistic rather than processual interpretation of experience. In contrast, Whitehead himself suggests the title 'relativistic realism'<sup>32</sup> for his early philosophy: The term 'body' is more accurately expressed as 'percipient event,' an act of awareness which is exclusive not to a mind but in its own immediacy;<sup>33</sup> and, 'nature' is the continuum of events<sup>34</sup> which is in no sense 'bifurcated' or dichotomised into separately existing substances. Any given 'natural' object is characterised in virtue of its relations to other entities and percipients. But this is neither subjective nor materialistic relativism. For the percipients are not minds, and 'natural' objects are not material bodies. Both are events or characters of events in experience.

This sub-section considered some of Whitehead's early works in preparation for the discussion of his concept of relativity as it occurs in the metaphysics of Process and Reality. Firstly, we saw that Whitehead interprets the concept of relativity in terms of relatedness or connectedness

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<sup>32</sup>See Whitehead, "The Philosophical Aspects of the Principle of Relativity," p. 141.

<sup>33</sup>See CN, p. 107. Also, see A. N. Whitehead, "Time, Space, and Material: Are They, and if so in What Sense, the Ultimate Data of Science?" The Interpretation of Science, ed. A. H. Johnson (Indianapolis and New York: The Bobbs-Merrill Company, 1961), p. 62.

<sup>34</sup>CN, p. 76.

which is the basis of a certain uniformity in spatio-temporal experience. This is contrary to what he understands as Einstein's concept of relativity. Secondly, we saw that this relatedness is a fundamental element in experience, rather than a feature derived from a mind. As such, the notion precludes any ultimate division or dichotomy of experience into separately existing substances, such as body and mind.

The danger involved in referring to Whitehead's early works in a dissertation on his metaphysics (which is contained in his later writings), is that confusion may arise in respect to terminology and developing concepts. For Whitehead uses many different terms and concepts in each of the periods mentioned, and he also uses some of the same terms to denote different concepts in each of these periods. An attempt has been made here, however, to discuss the notion of relativity or relatedness, which, in its generality, is relevant to the forthcoming analysis of that concept mainly as it occurs in Process and Reality. The task in the subsequent sub-section is to determine if this contention is valid by comparison of the general notion of relativity in some of the early works with the general notion of relativity in some of the later works.

(b) The Importance of the Concept of Relativity  
in Whitehead's Later Works

Above, we saw that for Whitehead, the term 'relativity' denotes a fundamental, experiential relatedness or connectedness. In an early essay (1922) he states that "the general character of its importance arises from the emphasis it throws upon relatedness /.../. We can never get away from an essential relatedness involving the multiplicity of data."<sup>35</sup> This view is not peculiar only to his early works. He makes an equivalent statement in Adventures of Ideas (1933): "The essential connectedness of things can never be safely omitted. This is the thoroughgoing relativity which infects the universe."<sup>36</sup> The general view that 'relativity' refers to relatedness or connectedness and that this is an essential factor of experience, seems to be one which Whitehead sustained in his early through to his later writings. It is presented in An Enquiry Concerning the Principles of Natural Knowledge, where he states that: "The philosophical principle of relativity of space means that the properties of space are merely a way of expressing relations between things ordinarily said to be 'in space.'"<sup>37</sup> These relations

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<sup>35</sup>Whitehead, "The Philosophical Aspects of the Principle of Relativity," p. 143.

<sup>36</sup>AI, p. 154.

<sup>37</sup>PNK, p. 4.

constitute what in this work is termed the "significance" of things for one another. In "Remarks," a work delivered as an address to the Eastern Division of the American Philosophical Association in 1936, Whitehead reiterates the view of the general connectedness of things: "No factor is wholly accidental [...]. There are a variety of existences and of types of existences in the connected universe."<sup>38</sup> So the importance of the concept of relativity in his earlier and later thought, seems to reside in that it denotes a fundamental element of relatedness or connectedness among individual experiences.

In the early works Whitehead conceives this relatedness in terms of the uniformity of nature. This is its "texture."<sup>39</sup> It derives from the natural significance of events. Each event signifies others. The significance of an entity is its function as a relation with the potentiality for further discrimination of quality. The event signifies others in that it involves in itself qualitatively a general structure included as a condition of the quality of that event, a condition whereby it is a relative or connected

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<sup>38</sup>A. N. Whitehead, "Remarks," The Interpretation of Science, ed. A. H. Johnson (Indianapolis and New York: The Bobbs-Merrill Company, 1961), p. 204.

<sup>39</sup>A. N. Whitehead, "Space, Time and Relativity," The Interpretation of Science, ed. A. H. Johnson (Indianapolis and New York: The Bobbs-Merrill Company, 1961), p. 101.

entity. Other events in space-time are included generally as parts of the ingredient whole in the qualitative character of the event.<sup>40</sup> For example, the entity which is a "crimson cloud is essentially connected with every other item of nature by the spatio-temporality of nature [^...]. Nature as a system is presupposed in the crimsonness of the cloud."<sup>41</sup> The general character "crimson cloud" is derived from the relativity or connectedness of the event to the whole of nature considered in a general sense. In other words, there would be no event generally characterised as a "crimson cloud" if there were no system of other entities in relation to which it could acquire that general character. This illustrates the fundamental connectedness of experience.

In his later works Whitehead talks about this relatedness in terms of the transfer of objective pattern. For example, in 1941 he claims that "the notion of pattern emphasises the relativity of existence, namely, how things are connected."<sup>42</sup> Each moment of experience is characterised by a pattern which is inherited or repeated from past moments

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<sup>40</sup>A. N. Whitehead, "Uniformity and Contingency," The Interpretation of Science, ed. A. H. Johnson (Indianapolis and New York: The Bobbs-Merrill Company, 1961), p. 120.

<sup>41</sup>Whitehead, "The Philosophical Aspects of the Principle of Relativity," p. 140.

<sup>42</sup>A. N. Whitehead, "Mathematics and the Good," The Interpretation of Science, ed. A. H. Johnson (Indianapolis and New York: The Bobbs-Merrill Company, 1961), p. 201.

of experience, or by a pattern received from God. Hence, there is a connectedness in experience, in virtue of the integration of pattern in individual moments of experience. "Pattern or conceptual activity is a natural feature of experience."<sup>43</sup> It constitutes a fact of connectedness. The terms 'pattern' and 'conceptual activity' do not refer to a function of mind. They refer to factors of experience. Pattern may perform two functions. It may be (1) the quality of definiteness distinguishing a moment of experience; and (2) the quality of generality (potentiality) relating moments of experience. It may perform both functions at once, generally determining these moments and generally relating them. This is the notion of relativity analysed in terms of the theory of external relations.

Interpreted in this sense, the theory of relativity does not succumb to the objection that it makes finite knowledge impossible.

This objection is met in two ways: In so far as nature is systematically related, it is a system of uniform relatedness; and in the second place, intelligibility is preserved /.../ by the break-<sup>44</sup> down of relatedness which is involved in atomicity.

Whitehead seems to think of the systematic character of the

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<sup>43</sup>Burgers, Experience and Conceptual Activity..., p. 126.

<sup>44</sup>A. N. Whitehead, The Principle of Relativity (Cambridge: Cambridge University Press, 1922), p. 73.

relatedness as providing some kind of definiteness, although he does not clarify exactly how this is to be understood. Also, there is a certain atomicity which derives from function (1) of the pattern. The connection which is the transfer of pattern is a disjunctive relatedness, the relation of distinct entities. The theory of external relations is the theory of the general relatedness among generally distinct units of experience.

### 3. Objectification of Actual Entities

#### (a) Actual Entities and Eternal Objects in the Process of Transition

Every entity in experience is dipolar: It possesses a mental pole and a physical pole. The fully concrete actual entity involves the integration of both poles.<sup>45</sup> The element of mentality as an aspect of non-cognitive experience is denied in the earlier works on the philosophy of science.<sup>46</sup> But mentality in these works is understood as bearing reference to 'thought' and 'mind.' In the metaphysical works of the later period, however, mentality is associated not with 'mind' but with eternal objects which may be modes of

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<sup>45</sup>A. N. Whitehead, "Time," The Interpretation of Science, ed. A. H. Johnson (Indianapolis and New York: The Bobbs-Merrill Company, 1961), p. 240.

<sup>46</sup>See Whitehead, "The Philosophical Aspects of the Principle of Relativity," p. 142.

definiteness or modes of potentiality, or both.<sup>47</sup> The mental pole of the actual entity derives from the functioning of eternal objects in that entity.

The two poles of the actual entity refer to different types of prehension. The physical pole involves physical prehensions each of which "feels eternal objects as immanent, as determined to specific actualities."<sup>48</sup> The mental pole is a conceptual prehension which "feels the eternal objects felt as immanent in (the preceding) physical feeling as now being transcendent, as being pure possibilities quite apart from any particular realization in the physical world."<sup>49</sup> In the physical pole of the actual occasion there is a feeling of an eternal object functioning as a mode of definiteness. In the mental pole there is a feeling of the same eternal object felt in the physical pole, functioning now as a mode of relatedness, or potentiality. The mental pole may also involve eternal objects not derived from the physical pole but provided for that actual entity by God. It is an element of sheer novelty--an element of sheer potentiality whereby

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<sup>47</sup> See Whitehead, "Unpublished Letter from Whitehead to Hartshorne (1936)," p. 199.

<sup>48</sup> D. W. Sherburne, "The 'Whitehead Without God' Debate: The Rejoinder," Process Studies, vol. 1, no. 2 1971, p. 110.

<sup>49</sup> Sherburne, "The 'Whitehead Without God' Debate...", p. 110.

the actual entity tends towards a state of indeterminacy.<sup>50</sup>

The eternal object is the means according to which one actual entity of experience becomes available in the process of transition for synthesis in the concrescence of another actual entity. It qualifies or characterises the actual entity in which it participates. The actual entity acquires determinacy and external or objective relatedness in virtue of the functioning of the eternal object which participates in it. For the eternal object as mode of potentiality, provides it with the capacity for entering into the constitution of other actual entities. In this way, the actual entity becomes a distinct or diverse and objective fact. It is diverse because it is determinate, and objective because it has the capacity for further determination in other actualities. Transition is the process whereby an actual entity becomes objectively diverse, a distinct entity available for synthesis in other actual entities.

(b) Transition

The acquisition of objective character by an actual entity involves the termination of the internal process of concrescence, but it does not entail the end of process.

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<sup>50</sup>See PR, p. 31, The Category of Conceptual Reversion.

The internal process as 'perpetually perishing' is the continuation, in another form, of the process of an actual entity, the one creative process.

Whitehead states: "Actuality in perishing acquires objectivity, while it loses subjective immediacy."<sup>51</sup> In other words, at the completion of the internal process of concrecence, which is the 'loss of subjective immediacy,' the acquisition of objective character begins. The objectivity of the actual entity is its character of being generally definite and generally capable of relatedness to other entities in experience. In becoming objective the actual entity perishes, but it does not change, spatio-temporally. The perishing is the acquisition of generally determinate and relative or potential character. The notion of 'perpetual perishing' seems to suggest that this acquired character is 'everlasting,' i.e., perpetuated in other entities of experience. Whitehead develops this suggestion in his statement that "an actual entity has perished when it is complete /.../. The creature perishes and is immortal."<sup>52</sup> The perpetual perishing of an actual entity is a process in which the determinate character thereby acquired by that entity involves a permanent capacity for entering into other

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<sup>51</sup>PR, p. 34.

<sup>52</sup>PR, p. 99.

actual entities newly emerging. This, in effect, is the process of 'transition.'

#### Transition

is the fluency whereby the perishing of the process, on the completion of the particular existent constitutes that existent as an original element in the constitutions, of other particular existents elicited by repetitions of process.<sup>53</sup>

The transition is the constituting of an existent, which is already complete, as an original element for synthesis in other existents, which are in the process of concreting. The existent in transition is the actual entity acquiring objective form, as a determinate quality with capacity for entering into other entities which are subjectively immediate. What is constituted in others is the objective form or external character of the entity in transition. This character functions as the initial datum<sup>54</sup> for constitution in other actual entities. "The creativity in virtue of which any relatively complete actual world is, by the nature of things, the datum for a new concreting, is termed 'transition.'"<sup>55</sup> Transition is not the actual transference of actual entities,

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<sup>53</sup>PR, p. 243.

<sup>54</sup>Concrete data made available by objectification, and/or abstract data made available by ingression constitute the initial data of the actual entity. The objective data are selected from the initial data in a process of feeling. See Johnson, Whitehead's Theory of Reality, p. 21.

<sup>55</sup>PR, p. 244.

one to another. It is the process of becoming available for such transference, which is effected or realised in the concrescence of the newly emerging actual entity. Transition is the process of the acquisition and persistence of an external or objective character.

The entity in transition causally influences the newly emerging actual entities in the concrescences in which it is constituted. "Transition is the vehicle of efficient cause, which is the immortal past."<sup>56</sup> But a completed entity is not an agency; it cannot act in such a way as to produce another occasion as effect. Whitehead does not explain the notion of efficient causation in terms of agency. The only agency is the actual entity as self-causing, as a synthesis of other items in experience directed in accordance with a final cause or general aim. The final cause is the purpose made available to the actual entity by God. Self-causation is the internal process of the actual entity which involves the reception and integration of data in accordance with the final cause, and the modification or adjustment of the final cause itself. The efficient cause is the influence exerted by past or completed actual entities on the subjective character or content of the present or emerging actual entity. Each completed actual entity in the environment of an emerging

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<sup>56</sup>PR, p. 243.

actual entity becomes an objective datum in its constitution. As such the former entities are conditions or efficient causes of what the emerging actual entity will become. Professor Leclerc puts it in this way:

In /Whitehead's 7 doctrine an 'efficient cause' is a past actuality, as objectified. An efficient cause cannot 'act;' it is an 'efficient cause' by virtue of its 'pastness.' The past does not 'act' in the present, for, as past, its activity is over; it merely 'functions' in the present by being a 'ground of obligation' conditioning the activity of present actual entities.<sup>57</sup>

Transition is the vehicle of efficient cause in the sense that it is the process which provides the conditions according to which an emerging actual entity must adhere, in so far as it occurs in a given environment constituted by the completed entities which serve as the individual conditions. 'The burning of the fire' is an efficient cause of 'the heat in the body,' but not in the sense in which the former is thought to be the agency whereby 'the heat in the body' is the fact of experience which it is. 'The burning of the fire' is the objective datum felt in the actual entity which is 'the heat in the body.' 'The burning of the fire' is a determinate quality or eternal object, of which the actual feeling belongs to the actual entity that is 'the heat in the body.' The activity of the actual entity is self-caused, and is simply conditioned or qualified by efficient causes. In

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<sup>57</sup>Leclerc, Whitehead's Metaphysics..., p. 110.

this way, the objective character of each new actual entity is partially shaped by efficient causes provided in the process of transition.

The concept of transition depends upon the notion of the "two-way functioning" of eternal objects. For it involves the acquisition of objective character whereby there is a relatedness among distinct or diverse entities.<sup>58</sup> And this would not be possible unless eternal objects were capable of functioning in two ways at once.

There are eternal objects determinant of the definiteness of the objective datum which is the 'cause,' and eternal objects determinant of the definiteness of the subjective form belonging to the 'effect.' When there is re-enaction there is one eternal object with two-way functioning, namely, as partial determinant of the objective datum, and as partial determinant of the subjective form. In this two-way role, the eternal object is functioning relationally between the initial data on one hand, and the conerescent subject on the other.<sup>59</sup>

The "re-enaction" mentioned here, is the process or activity of the conerescing actual entity synthesising the objective data provided in the transition from past entities. The eternal object performs a "two-way role" in that as mode of definiteness in both the past and the present actual entities, it distinguishes or determines and relates them. As a mode of definiteness, such an eternal object partially

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<sup>58</sup>See section 3(d) below, for a discussion of the problem of objectification.

<sup>59</sup>PR, p. 279.

determines; as potentiality or mode of relatedness, it partially relates. An eternal object functioning in this way in an actual entity constitutes the objective character of that entity. Transition is the process whereby such character is acquired.

Transition is the process of external or objective relatedness among actual entities. It is the relatedness created by the availability of actual entities with objective character as data for newly conerescing entities. This notion is essential to Whitehead's theory of objectification, which will be developed further in the remainder of this chapter.

#### (c) Objectification

The term 'objectification' is a mode of analysis of the process called 'transition.' The former term is used, in order to place greater emphasis on the functioning of the eternal object in the transition.

Objectification refers to the availability of an actual entity in terms of its objective quality or character, for constitution in others. It "refers to the particular mode in which the potentiality of one actual entity is realized in another actual entity."<sup>60</sup> The objective character

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<sup>60</sup>PR, p. 28.

is the aspect of the actual entity which it acquires upon the completion of its internal process, and that whereby it is generally determinate, yet with the capacity for further determination in other actual entities. This character derives from the two-way functioning of an eternal object. The functioning of the objective character of an entity in another is the form of relatedness known as objectification. "The functioning of one actual entity in the self-creation of another actual entity is the 'objectification' of the former in the latter actual entity."<sup>61</sup> Something functions when it contributes to the determination of an actual entity. The functioning of one actual entity in another is the contribution the former makes to the concrete definiteness of the latter actual entity. For the objective character which is partially definite is also a potentiality, therefore its definiteness is transferable to other actual entities. It is one of the conditions of what that entity is to be.

Objectification is a way in which the past influences the present. An actual entity acquires objectivity only when it is complete. A completed entity, by objectification, becomes available for constitution in another actual entity which is incomplete, i.e., one which is in the process of concreting. It is a past condition of the emergence of a

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<sup>61</sup>PR, p. 30.

present actual entity, one which is in the process of completing itself. This influence by condition is involved in what Whitehead calls 'efficient causation' of one actual entity by another.

Relatedness by objectification is not total identification of one actual entity with another. The one is not contained simpliciter in the other. The relatedness is effected by an eternal object functioning in two ways. As mode of definiteness, the eternal object is determined to a completed actual entity: As potentiality it may become a constituent in the internal process of an incomplete actual entity. Hence, the past or completed actual entity is not totally involved in the present or incomplete actual entity. The two are only partially identical. "The mere objectification of actual entities by eternal objects lacks 'immediacy.'"<sup>62</sup> The past actual entity objectified in the present is involved therein under limitation: Objectification signifies relatedness under limitation. This is the meaning of the relation of objective diversity. "Occasion A does notprehend occasion B simpliciter, but B under limitation which is objectification."<sup>63</sup> For example, consider the concrete anger of an individual responding to a concrete situation

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<sup>62</sup>PR, p. 179.

<sup>63</sup>A. N. Whitehead, "Time," p. 242.

which provokes the anger. The anger is an eternal object exemplified in a series of actual entities (say, A1, A2, A3...) in the immediate life of the individual in question. According to the theory of objectification, the relatedness among these actual entities is the result of objectification of the feeling of anger of one occasion in another. There is an objective datum A which provokes, or is the initial condition (or group of conditions) of the feeling of anger in actual entity A1. The feeling of anger in A1 is objectified in A2, A3, and so on. In other words, the feeling of anger in A1 is present in A2 as the partially determinate character of the anger felt in A1. Although according to the theory of immanence outlined in chapter III, there is a literal transfer of feeling, there is only partial identity of content between any two actual entities. So the anger which is the actual entity A, is only partially identical with the anger which is the actual entity A2. This may be understood as an interpretation of the fact of the dissipation and/or modification of a concrete experience of anger in the immediate life of an individual. Objectification is a form of limited relatedness. Such relatedness may be termed 'objective diversity.'

Objective diversity signifies a plurality of entities which are describable as such because they are (1) generally determinate or diverse in virtue of the definiteness of their

objective characters, and (2) generally related in virtue of the potentiality of their objective characters. This potentiality indicates a measure of indeterminacy in the actual entities distinguished. Their objective diversity is a form of external relation, a relation describable in terms of objective or external character.

(d) The Problem of Objectification

Professor Johnson has raised the question as to whether objectification is strictly an external relation. He contends that Whitehead uses the term in an ambiguous way.<sup>64</sup> On the one hand it may mean (1) the availability of concrete data (completed actual entities) for prehension by newly emerging actual entities, and (2) inclusiveness of concrete data as an element in, i.e., as physically pre-hended in newly emerging actual entities. In the first case objectification is an external relation whereas in the second it is an internal relation. Whitehead himself suggests (1) when he states that "the mere objectification of actual entities by eternal objects lacks 'immediacy.'"<sup>65</sup> It also underlies his view that "an object is anything performing this function of a datum provoking some special

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<sup>64</sup> See A. H. Johnson, Whitehead's Theory of Reality (2d ed.; New York: Dover Press, 1962), p. 182.

<sup>65</sup> PR, p. 179.

activity of the occasion in question."<sup>66</sup> Whitehead uses the term, 'objectification,' in sense (2) when he states that "the functioning of one actual entity in the self-creation of another actual entity is the 'objectification' of the former in the latter actual entity."<sup>67</sup>

Whitehead's ambiguity here entails that objectification be regarded both as an internal relation and as an external relation. Also, if it is used in sense (2), then objectification and physical prehension are identical. It seems more likely however, that Whitehead intended to distinguish objectification from physical prehension, the former being an external relation as it is in sense (1) above, the physical prehension being the internal counterpart of objectification. In some cases, it would seem, he has confused the issue.

#### (e) The Problem of Ingression

Both objectification and ingression are concerned with how contribution is made to the self-creation of an actual entity. But they are distinct concepts.

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<sup>66</sup>AI, p. 176.

<sup>67</sup>PR, p. 30.

The functioning of an actual entity in the self-creation of another actual entity is the 'objectification' of the former for the latter actual entity. The functioning of an eternal object in the self-creation of an actual entity is the 'ingression' of the eternal object in the actual entity.<sup>68</sup>

Objectification is the relation of a completed actual entity, qualified or characterised by an eternal object, to a newly emerging actual entity. Ingression is the relation of an eternal object, without specific determination in a completed actual entity, to a newly emerging actual entity. Objectification is a relatedness among actual entities (qualified by eternal objects). Ingression is a relatedness between eternal objects and actual entities. Objectification is the provision of concrete data for newly emerging actual entities, ingression the provision of abstract data for newly emerging entities.<sup>69</sup>

Ingression of eternal objects seems to refer to the process of becoming available as data for conceptual prehension by actual entities. This is an external relation between the eternal object and actual entities because the eternal object is indeterminate as to its participation in particular actual entities. The eternal object becomes available, i.e., it is provided or given as data, in virtue

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<sup>68</sup>PR, p. 30.

<sup>69</sup>See Johnson, Whitehead's Theory of Reality, p. 21.

of the primordial nature of God.

In Whitehead's system God is an actual entity. Like other actual entities, His character is dipolar,<sup>70</sup> i.e., it consists of a conceptual side and a physical side. His conceptual side is His 'primordial nature.' His physical side is His 'consequent nature.' The character of God consists in the interrelation of His primordial and consequent natures. As primordial, He is the system of eternal objects, or world of objective Platonic Forms upon which the order of the universe depends.<sup>71</sup> As such, He is not essentially concerned with the fate of any particular actual entity,<sup>72</sup> or any particular course of history. The primordial nature of God is Whitehead's way of describing what he claims is a fact of experience, namely, the general potentiality which is the system of eternal objects. As consequent, God feels or prehends the plurality of actual entities which make up the universe. In His consequent nature He is the everlasting retention of completed actual entities. In this sense, He is the Saviour of the world. He saves what can be saved of the temporal world of actualities in process.

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<sup>70</sup>See PR, p. 407.

<sup>71</sup>See PR, p. 38 and p. 60.

<sup>72</sup>See PR, p. 39 and p. 58.

The eternal object, in ingression, becomes available or relevant for determination in some actual entity. As such, it is exemplified 'somewhere' in the universe, i.e., it is a factor of experience. Ingression expresses the fact that eternal objects or forms are indeterminately 'there' to be prehended.

The question has been raised, however, as to whether ingression is strictly an external relation. Professor Johnson points out the ambiguity in Whitehead's use of the term.<sup>73</sup> There are two basic senses of ingression which are relevant to the problem at hand: (1) availability of an eternal object for possible prehension by an actual entity; and (2) inclusiveness of an eternal object as an element in, i.e., conceptual prehension in actual entities. In the first sense, ingression is a mode of external relatedness, while in the second sense, it is a mode of internal relatedness. On the one hand, Whitehead states:

The 'positive prehension' of an entity by an actual entity is the complete transaction analysable into the ingression, or objectification, of that entity as a datum for feeling, and into the feeling whereby this datum is absorbed into the subjective satisfaction.<sup>74</sup>

The term 'ingression' is used in sense (1) in this text.

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<sup>73</sup>See Johnson, Whitehead's Theory of Reality, p. 24.

<sup>74</sup>PR, p. 66.

On the other hand, Whitehead explains that, "only a selection of eternal objects are 'felt' by a given subject, and these eternal objects are then said to have 'ingression' in that subject."<sup>75</sup> The term 'ingression' is used in sense (2) in this text.

Certainly, Whitehead uses the term in an ambiguous way. But it is difficult to see why Whitehead would deliberately employ the term strictly in reference to the function assigned to conceptual prehension. For in that case ingression and conceptual prehension become one and the same thing. It seems more likely that Whitehead intended to convey some distinction between the two, and that this distinction is sometimes blurred by his manner of expression. The distinction intended seems to be that ingression is the mode of external relatedness of which conceptual prehension is the internal counterpart. That this is in fact the case, however, is not made clear by Whitehead.

(f) Objective Immortality

The analysis of the process of transition is continued in terms of the development of the notion of objective immortality. The latter refers to the aspect of transition which emphasises the 'immortality' of some of the data made

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<sup>75</sup>PR, p. 55.

available to the newly emerging actual entity.

The actual entity, as a process, performs a variety of functions which it is necessary to describe in a variety of ways. These fall into two basic descriptions.

Two descriptions are required for an actual entity: (a) one which is analytical of its potentiality for 'objectification' in the becoming of other actual entities, and (b) another which is analytical of the process which constitutes its own becoming.<sup>76</sup>

Description (a) refers to what may be called the actual entity as object; description (b) refers to what may be called the actual entity as subject. The subject is the actual entity in its function as internal synthesis effecting a unity of other items of experience. The object is the actual entity in its function as completed unity involving the qualitative character which is its capability for synthesis in other actual entities. "The subject-object relation is the fundamental structural pattern of experience [^...\_]. But not in the sense in which subject-object is identified with knower-known."<sup>77</sup> In other words, Whitehead does not use the term subject to mean 'mind' or 'consciousness.' Nor does he use the term object to mean 'body' or 'material entity.' An object is a datum provoking some special activity; the subject is a special activity, analysable in terms of prehension.

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<sup>76</sup>PR, p. 28.

<sup>77</sup>AI, p. 175.

What Whitehead calls the 'superject' is the completed actual entity having the qualitative content whereby it is a distinct object.

A superject /... 7 is the atomic creature exercising its function of objective immortality. It has become a 'being'; and it belongs to the nature of every 'being' that it is a potential for every becoming."<sup>78</sup>

The superject is the entity as objectively characterised, i.e., as a completed and qualitatively distinct unit of experience (a 'being'), which is also capable of synthesis by an entity newly emerging ('becoming'). Pertinent in this context is the point that the actual entity takes on the function of an object and, in a sense, becomes external and objective. The actual entity in becoming superject acquires the status of an object.

The 'immortality' of the object is its persistence in diverse actual entities in the process of concrescence. The object is the actual entity in its function of possessing qualitative or objective character which is external to the (internal) process of concrescence that originally constituted the actual entity. Hence, objective immortality is the persistence of the external character of an actual entity in new actual entities. As such, it is the external relatedness among actual entities. This point is evident in a text

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<sup>78</sup>PR, p. 59.

from Whitehead where he states that in its objective immortality the actual entity "has become a 'being'; and it belongs to the nature of every 'being' that it is a potential for every 'becoming.'"<sup>79</sup> This is a re-statement of the principle of relativity or principle of external relations.

The actual entity, as objectively immortal, is an objective fact. In other words, it is influential in the internal processes of other actual entities. An aggregate of objective facts constitutes the environment of an actual entity in the process of concrescence. That environment partly conditions what the actual entity will become; each objective fact functions in a causal way as a condition of the new actual entity. The objective fact is the superject or creature in "its immortal function of part-creator of the transcendent world."<sup>80</sup> The objective fact is a fact of experience, a constituent of the environment of another (concreasing) occasion partly creating that entity in the sense that it is a condition of its content. Professor Das attempts to clarify this point with the example of a man whose present behaviour towards dogs is influenced by a bite he received from a dog in the past.<sup>81</sup> The experience of

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<sup>79</sup>PR, p. 59.

<sup>80</sup>PR, p. 103.

<sup>81</sup>See R. Das, The Philosophy of Whitehead (London: James Clark, 1938), p. 42.

having been bitten is a completed and qualitatively distinct unit of experience. It continues to influence the man's present behaviour towards dogs because, in virtue of the quality which is partly indeterminate or an aspect of that quality (for example, 'fearfulness') of the past experience, it is capable of transference to present occasions of the man's life, namely, those occasions during which he is in contact with a dog. This illustrates the notion of objective fact, or the objective immortality of an actual entity.

#### 4. Summary and Conclusion

As the most general statement of the doctrine of universal relativity, the category of the ultimate expresses the ultimacy or universality of relatedness. This relatedness is presented in terms of three notions, namely, the one, the many, and creativity. Each of these notions denotes a feature of the relatedness. Considered together, they constitute the most general conception of the character of experience.

The theory of external relations constitutes the full development of the notion of the many, or disjunctive diversity in the category of the ultimate. The central conception of this theory is the notion of objective diversity which denotes how an actual entity acquires the character whereby

it is diverse yet related to other actual entities. The objective character is that whereby an entity is disjunctively diverse, i.e., generally distinguished from other entities in virtue of its partially determinate character, yet generally related to other entities in virtue of the capacity of this character for further determination in those entities. Objective diversity or plurality is a basic feature of experience, one which is fully analysed in terms of the theory of external relations.

This theory, in effect, is an analysis of a basic principle of Whitehead's ontology, namely, the principle of relativity. The principle of relativity is a basic feature or condition of experience. It is expressed in terms of the notion of disjunctive diversity, and more fully described by the notion of objective diversity in the theory of external relations. It is the characterisation of the fact of the plurality of entities in experience. The theory of external relation constitutes the full analysis of this principle.

The concept of the principle of relativity is narrower than the doctrine of universal relativity. The principle itself is one of the features of experience the doctrine of universal relativity is designed to describe. The concept of the former denotes one kind of relatedness in experience, whereas the doctrine of universal relativity expresses the

universal form of relatedness found in experience. This doctrine is the most complete description of that relatedness, the full character of which is embodied in three principles, the ontological principle, the principle of relativity, and the principle of process or creativity.

Transition is the process of external relatedness among actual entities. It is analysable in terms of the theory of objectification, or the constituting of one entity as object in another. In this way, entities are objectively connected, related in virtue of their objective qualities or characters. At the same time, however, the actual entity objectively related, is a distinct object among the many to which it is related. There are, then, a plurality of actual entities externally related, i.e., distinguished and related in terms of their external or objective character.

## CHAPTER V

### THE DOCTRINE OF PROCESS

The category of the ultimate is the most general statement of the doctrine of universal relativity. It expresses the ultimacy or universality of the relatedness of experience in terms of the notions of the one, the many, and creativity. The notion of the one is developed in terms of the theory of internal relations, and the notion of the many is developed in the theory of external relations. In the category of the ultimate, the one and the many are interrelated in the notion of creativity. The doctrine of process, discussed in this chapter, is the elaboration of the concept of creativity, interrelating the theory of internal relations with the theory of external relations. The doctrine of process thus develops the most comprehensive concept in the category of the ultimate, and constitutes the final phase in the complete analysis of the doctrine of universal relativity.

The doctrine of process is an analysis of the principle of process as it is presented in the categoreal scheme of Process and Reality. This principle embodies a basic feature of experience--its creative advance. It may be described in terms of the interrelation of two other principles, namely, the ontological principle and the principle of relativity.

1. Statement of the Principle of Process

(a) The Principle of Process as Principle  
of the Interrelatedness  
of Internal and External Relations

The formal categoreal statement of the principle of process is contained in category of explanation (ix) in the Categoreal Scheme of Process and Reality:

How an actual entity becomes constitutes what that actual entity is; so that the two descriptions of an actual entity are not independent. Its 'being' is constituted by its 'becoming.' This is the 'principle of process.'<sup>1</sup>

"The two descriptions" referred to here are said to be necessary for a full account of the nature of the actual entity. Category of explanation (viii) states:

Two descriptions are required for an actual entity:  
(a) one which is analytical of its potentiality for 'objectification' in the becoming of other actual entities; and (b) another which is analytical of the process which constitutes its own becoming.<sup>2</sup>

Description (a) refers to the 'being' specified in category (ix), which is the statement of the principle of process, while description (b) refers to the 'becoming' specified in that category. These two descriptions are interrelated in the expression of the principle of process.

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<sup>1</sup>PR, p. 28.

<sup>2</sup>PR, p. 28.

The notion of the 'being' of an actual entity denotes the principle of relativity, as indicated in category of explanation (iv), which states that "it belongs to the nature of a 'being' that it is a potential for every 'becoming.' This is the principle of relativity."<sup>3</sup> The notion of the 'becoming' of an actual entity denotes the ontological principle as indicated in category (xviii), which states:

Every condition to which the process of becoming conforms in any particular instance, has its reason either in the character of some actual entity in the actual world of that concrescence, or in the character of the subject which is in the process of concrescence. This category of explanation is termed the 'ontological principle.'<sup>4</sup>

Hence, the principle of process interrelates the principle of relativity and the ontological principle.

Whitehead argues that one of the principles that his metaphysical doctrine is founded on is the "principle" which embodies "the very essence of real actuality--that is, of the completely real--(which) is process. Thus each actual thing is only to be understood in terms of its becoming and perishing."<sup>5</sup> In other words, fundamental to his philosophical viewpoint is the principle of process, according to which an "actual thing" is constituted by "becoming and

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<sup>3</sup>PR, p. 27.

<sup>4</sup>PR, p. 29.

<sup>5</sup>AI, p. 274.

perishing." The concept of process interrelates the two notions, becoming and perishing (concrecence and transition) in the full description of the actual entity. Becoming or concrecence as we saw in chapter III, is analysed in terms of internal or prehensive relations. Perishing or transition, as we saw in chapter IV, is analysed in terms of the acquisition of external or objective character whereby actual entities are qualitatively distinct and generally related. The concept of process, as the interrelation of concrecence and transition, constitutes the interrelation of the notions of internal and external relations.

According to the above, Whitehead makes an important distinction between the notions of process and becoming. Sometimes, however, he confuses the issue when he states for example "that the actual world is a process, and... process is the becoming of actual entities."<sup>6</sup> On other occasions, however, the term 'becoming' seems to be restricted to the internal constitution of the actual entity.<sup>7</sup> The more common technical term used in Process and Reality to denote this aspect of the actual entity is 'concrecence.' 'Becoming' and 'concrecence' refer to one and the same thing. The

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<sup>6</sup>PR, p. 27.

<sup>7</sup>See PR, p. 58, and p. 85. This view seems to be implied in these texts.

term 'process,' however, in its strict application, seems to have a more extensive reference. It indicates both the internal and external character of actual entities. 'Process' includes reference to both becoming and perishing, to both concrescence and transition. Becoming and perishing, or concrescence and transition are distinct but interrelated phases of one and the same process.

The principle of process is discussed by Whitehead in another way which helps to clarify its precise statement. He explains:

The first, the fourth, the eighteenth, and twenty-seventh categories state different aspects of one and the same general metaphysical truth. The first category states the doctrine in a general way: that every ultimate actuality embodies in its own essence, what Alexander terms 'a principle of unrest,' namely, its becoming. The fourth category applies this doctrine to the very notion of 'entity.' It asserts that the notion of an 'entity' means 'an element contributory to the process of becoming.' We have in this category the utmost generalization of the notion of 'relativity.' The eighteenth category asserts that obligations imposed on the becoming of any particular actual entity arise<sup>8</sup> from the constitutions of other actual entities.

According to this text, four particular categories of explanation specify different aspects of the "doctrine" of "unrest" which is a "general metaphysical truth." In category (i) it is stated thus: "that the actual world is a process, and that the process is the becoming of actual entities. Thus actual

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<sup>8</sup>PR, pp. 33-34.

entities are creatures; they are also termed 'actual occasions.'"<sup>9</sup> This is the doctrine expressed in a general way, and the other three categories constitute the elaboration of its specific aspects. Whitehead, in the longer text cited above, neglects to specify the distinct relevance of category (xxvii). But it seems to be a more detailed expression, in terms of prehensions, of category (xviii).<sup>10</sup> Category (xviii) is a statement of the ontological principle. Hence, this principle is expressed by the doctrine of unrest. Category (iv) is a statement of the principle of relativity. Hence, this principle is expressed by the doctrine of unrest. Whitehead fails to mention category (ix) which is an explicit statement of the principle of process. Yet this category is a more adequate general statement of the doctrine of unrest than category (i), which fails to distinguish process from becoming.

The principle of process understood in its fullest sense as interrelating the ontological principle and the principle of relativity, is the most general feature of experience. It is expressed by the interrelation of the notions of the individual unity and the plurality of actual entities. This principle is more fully developed in terms of the interrelation

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<sup>9</sup>PR, p. 27.

<sup>10</sup>See PR, p. 31.

of the theory of internal relations and the theory of external relations. It is the general character of experience that the doctrine of universal relativity attempts to describe. The principle of process is expressed in the category of the ultimate in terms of the concept of creativity which interrelates the notions of the one and the many. It is embodied in experience as the character of universal relatedness.

(b) The Interrelation of Internal  
and External Relations

The concept of process denotes the interrelation of the notions of becoming and perishing (or concrescence and transition). Each concept is necessary, neither one alone sufficient, for the full description of process. Each is the complement of the other. The becoming of an actual entity is the synthesis of other entities which have perished. The perishing of an actual entity involves the loss of subjective immediacy and the acquisition of objective immortality in the becoming of other actual entities which decide to make use of it. Each concept is interrelated with the other. Each is fully analysable only by reference to the other. Both are required in the full analysis of process.

The interrelation of these concepts, and the principles they denote, does not necessarily require their ontological equivalence. Whether the ontological principle is ontologically

prior to the principle of relativity or whether the becoming of actual entities is ontologically prior to their perishing, depends on how much ontological weight is to be assigned to the concepts in interrelation. The concept of process, however, indicates simply that the full analysis of the general character of experience involves reference to two concepts which are not correlated, but interrelated. It does not, in itself, specify the ontological priority of either concept.

The interrelation of the ontological principle and the principle of relativity, in the principle of process, constitutes the most general feature of experience. This feature is fully analysed in terms of the interrelation of two types of relatedness, internal and external. The analysis is what Whitehead calls the doctrine of universal relativity, the most general statement of which, is the category of the ultimate. The final phase in this analysis is the doctrine of process.

## 2. Process

### (a) Order and Disorder

'Process' is the technical term Whitehead applies to the notion of experience. It is variously named in different texts and in different periods; it is the flux of things, passage, the 'ongoingness' of nature, the creative advance,

creativity. Process is not static or inert; it involves impermanence and disorder, loss and decay. But it also involves a measure of permanence and order, renewal and progress. Whitehead was well aware of the difficulty of finding a term with the width of generality adequate enough to express the fullness of experience. Perhaps this is one of the reasons why he felt that "the final summary can only be expressed in terms of a group of antitheses."<sup>11</sup> Process is not self-contradictory, however, because it involves antitheses. For the antithetical characteristics refer to different phases of the process. "Opposite elements stand to each other in mutual requirement."<sup>12</sup> In other words, they are interrelated aspects of the fullness of experience.

Process involves loss and decay. "In the temporal world, it is the empirical fact that process entails loss: The past is present under abstraction."<sup>13</sup> Whitehead does not argue the point: Loss is an empirical fact. The task is to describe it adequately and with coherence. A flower, for example, exists as that individual flower with those particular features during that specific time on that specific patch of earth... and then it dies. When the internal synthesis or

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<sup>11</sup>PR, p. 410.

<sup>12</sup>PR, p. 411.

<sup>13</sup>PR, p. 401.

concrecence is complete the actual entity passes into objective fact. There is loss of subjective immediacy, the immediacy whereby the entity was this determinate entity with those determinate features existing at that determinate time and place. As objective fact, the flower is present only in virtue of, for example, the disturbance of the patch of earth in which it had grown. The entity is now present, only as an object (effect) in the constitution of present actual entities.

Process involves impermanence and disorder.

By reason of the essential individuality of the many things, there are conflicts and finite realizations. Thus, the summation of the many into the one, and the derivation of importance from the one into the many, involves the notion of disorder, of conflict, of frustration.<sup>14</sup>

Whitehead believes that he is aligning himself with Plato in this regard: "In the Timaeus the origin of the present epoch is traced back to an aboriginal disorder, chaotic according to our ideals."<sup>15</sup> The disorder is created by conflicting purposes among individuals. In so far as there is no predominating purpose, each individual pursues its own end, creating a "lapse towards slighter actuality."<sup>16</sup> The "actuality" is "slighter" because the intensity of internal feeling in any

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<sup>14</sup>MT, p. 51.

<sup>15</sup>PR, p. 114.

<sup>16</sup>PR, p. 111.

individual is feeble in virtue of the incapability of that individual adequately to synthesise other items in experience with which it conflicts. The lack of a general purpose and individual intensity is the dominant feature of a real, experiential state of disorder, i.e., of a multiplicity of actual entities. There is no single order which permeates all experience.

The foundation of all understanding of sociological theory--that is to say, of all understanding of human life--is that no static maintenance of perfection is possible. This axiom is noted in the nature of things. Advance and Decadence are the only choices offered to mankind.<sup>17</sup>

Whitehead is no idealist. No organization or arrangement of things, whether they be atoms or human beings, remains the same. Each has a life-history, at the end of which lies decay and disorder.

But this is not the whole story. There are two sides to Whitehead's view. The notion of process does not involve the denial of elements of permanence and elements of order. One arrangement of things may die, yet another may be born.

"The World which emphasises the multiplicity of mortal things is the World of Activity.... The World which emphasises Persistence is the World of Value."<sup>18</sup> Activity is impermanent;

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<sup>17</sup>AI, p. 274.

<sup>18</sup>A. N. Whitehead, "Immortality," The Interpretation of Science, ed. A. H. Johnson (Indianapolis and New York: The Bobbs-Merrill Company, 1961), p. 250.

value is timeless and everlasting. Activity receives its importance from its relation to value. Value is only effective in reference to some activity. Value is a neutral term in reference to what is good and what is bad. For Whitehead, all activities are valuable, but not all are good. And every particular value, in order to be a value, must be effective, i.e., involved in some particular way in the World of Activity. Hence, although activities pass in virtue of the process, they acquire value; as valuable, they remain permanent elements taking their place in the course of things.

"There is nothing actual which could be actual without some measure of order."<sup>19</sup> One source of order is the eternal object functioning as a purpose and a pattern. As purpose it is a lure for feeling. As pattern it is the element of order. It evokes the drive towards an ordered state of affairs. "The ordering entity is a necessary element in the metaphysical situation presented by the actual world."<sup>20</sup> All activity is purposively or teleologically ordered. But there is no single, absolute, ideal Order. There are only specific types of order in the process of experience.

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<sup>19</sup>A. N. Whitehead, Religion in the Making (New York; Meridian Books, 1971), p. 115. This book will be referred to as RM in the remainder of this dissertation.

<sup>20</sup>RM, p. 101.

## (b) Rhythm and Novelty

According to Whitehead, the world is a process and the process is creative. Creative process, or creativity is analysable in terms of its rhythm and novelty. These are its predominant characteristics.

The creative process is not merely a serial progression towards an absolute unity of experience.<sup>21</sup> Every new actual entity does not include the whole of every past actual entity. The past is present under abstraction. There is no strict succession of superseding actual entities constituting all experience. The process does not administer under a single ideal or aim according to which it achieves its ends. It entails loss, repetition, and novelty, in accordance with specific aims of specific actual entities, entities which, in this way, achieve a measure of individuality, and effect the multidirectional character of process.

Creativity is a rhythmic process. There is, then, an essential 'sameness' and an essential 'difference' in virtue of which process is rhythmic. The unity or 'sameness' derives from the repetition of pattern or character throughout the 'whole.' The 'difference' derives from the unique application of the pattern by the individual 'parts.' The rhythm is a factor in the nature of the process. For in each

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<sup>21</sup>See CN, p. 178, and PR, p. 41.

application of the 'same' pattern, a 'different' individual situation is created. There is a dynamic alternation between 'sameness' and 'difference.'

Life is essentially periodic. It comprises daily periods, with their alternations of work and play, of activity and sleep, and seasonal periods, which dictate our terms and holidays; and also it is composed of well-marked yearly periods.<sup>22</sup>

If we consider a week as a 'whole,' the day as a 'part' and the pattern of the whole describable as the 'work-play' pattern, then we may speak of the rhythm of the week as the alternation between the 'same' pattern of 'work-play' and the 'difference' ensuing from each daily application of that pattern. The pattern of the week's activities is the 'same'-- characterised by 'work-play.' But each individual day of 'work-play' is unique in terms of the concrete detail or peculiarity of its activities. This illustrates the rhythm of process.

Whitehead expresses this idea in another way:

The creative process is rhythmic; it swings from the publicity of many things to the individual privacy; and it swings back from the private individual to the publicity of the objectified individual.<sup>23</sup>

Publicity is the objective character in virtue of which individual actual entities relate to each other externally,

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<sup>22</sup>See A. N. Whitehead, Aims of Education and Other Essays (New York: Free Press, 1967), p. 17.

<sup>23</sup>PR, p. 175.

forming the 'many things.' 'Individual privacy' refers to the synthesis which is internal to each individual actual entity. The process is rhythmic in that it consists of actual entities which emerge from the internal synthesis to a state of objectivity, thereby constituting a plurality of 'many things' which in turn are synthesised in the internal contact of newly emerging actual entities. The rhythm of the process derives from the alternation between the 'sameness' of the 'internal-external' pattern of all actual entities, and the 'difference' or uniqueness of the concrete feeling of that pattern by each actual entity.

The rhythm of creativity is analysable in terms of two species of process. As Professor Leclerc states "The rhythm of the universal creative process /.../ distinguishes itself into two phases, which are the two species of process."<sup>24</sup> The species are concrescence and transition.

There are two species of process /.../. The macroscopic process in the transition from attained actuality to actuality in attainment; while the microscopic process (concrescence) is the conversion of conditions which are merely real into determinate actuality.<sup>25</sup>

The process involves both concrescence, which is the internal 'conversion' or synthesis of data into a determinate unity,

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<sup>24</sup>I. Leclerc, Whitehead's Metaphysics: An Introductory Exposition (London: Allen and Unwin, 1958), p. 89.

<sup>25</sup>PR, p. 247.

and transition, which is the persistence of external or objective character from one actual entity to another. The alternation between the two species constitutes the rhythm of process.

Concrescence and transition do not constitute ontologically separate processes, but interrelated species of the one process. The latter is analysable in terms of this interrelation. Each species is a different aspect of process. Concrescence is the internal, transition the external aspect. In other words, 'internality' is ascribed to process in virtue of the concrescences of the actual entities of which it consists. 'Externality' is ascribed to process in virtue of the external or objective character acquired by its actual entities. The interrelation of these two features, the internal and the external, constitute the full character of the rhythmic, creative process.

The creativity of process is its ultimate character. Essentially, it involves rhythm, which is analysable in the various ways outlined above. But creativity also involves novelty in an equally essential way.

Creativity transforms "disjoined multiplicity, with its diversities in opposition into concrescent unity, with its diversities in contrast."<sup>26</sup> The 'disjoined multiplicity'

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<sup>26</sup>PR, p. 410.

with 'diversities in opposition' is the plurality of completed actual entities which constitute the actual world. These actual entities are in 'opposition,' i.e., are uncoordinated, because they possess no actual point of reference in common. Creativity is the production of an actual point of reference in relation to which this plurality is arranged into determinate, coherent unity. It is the process whereby the incoherent many become coherent in an individual one. In this way, creativity is an advance, involving the production of novel actual entities, or the origination of new unities of the hitherto uncoordinated elements of experience.

The process of creativity entails indeterminacy and incompleteness in the universe, because something singular and new is always originating. The product of creativity is the actual entity which is only partially determined by past entities, involving in itself the uniqueness of its own subjective form. The principles of a natural science, for example, state the conditions of order in experience, but experience which is incomplete. Hence, the principles attain the status only of probability: The future involves novelty and uncertainty, so we should not hope to arrive at certain laws. Professor Burgers states that creativity expresses the principle

that the universe in its evolution did not limit itself to the appreciation of a finite number of relations between patterns, which then gradually become fixed in physical laws. On the contrary, it contrives to evolve new relations<sup>27</sup>

New patterns of experience constantly emerge, and may not be explicable in terms of pre-existing principles in the sciences. The novelty which issues from the creative process produces a measure of indetermination and uncertainty.

According to Whitehead there is a measure of unity in the universe. "Creativity is the actualization of potentiality and the process of actualization is an occasion of experiencing /.../. The process of creation is the form of unity in the Universe."<sup>28</sup> Determinate unity resides in the internal constitution of the 'occasion of experience.' As such, it is a subjective unity, but subjective in the sense of 'immediate:' The exclusive subjectivity of the actual entity is the immediacy of its occurrence. With the passing of the immediacy of the actual entity which is the 'subject,' the determinate unity achieved in that entity gives way, i.e., the entity becomes an 'object' or datum for determination in the immediate activity of another actual entity. Since there are many such actual entities, there is no one complete unity in the universe, but many individual unities. In other words,

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<sup>27</sup>J. M. Burgers, Experience and Conceptual Activity: A Philosophical Essay Based upon the Writings of Alfred North Whitehead (Massachusetts: M.I.T. Press, 1965), p. 108.

<sup>28</sup>AI, p. 175.

the determinate unity the world is said to possess, derives from each determinate arrangement of its components by each actual entity that emerges. The determinate unity of the universe, then, is relative. Such unity is a consequence of the creative process.

Creativity involves the interrelation of this form of unity with novelty. It consists in the production of novel patterns of determinate unity. Hence, the universe is always determinately unified, but relative to an individual actual entity. The relativity of the unity is a consequence of the novelty issuing from the process. So, there is definite connectedness in the universe by way of the determinate unity of individual actual entities, and advance in virtue of the novelty of each of these entities. Whitehead's notions of determinate unity and novelty are complementaries: The production of novelty is another determinate unity; the unity in its unique determination is a new fact.

Creativity is the rhythmic process whereby the universe involves novelty and determinate connectedness. It is not a substance, but an activity, of which a detailed analysis may be presented in terms of the interrelation of the theory of internal relations and the theory of external relations.

(c) The Problem of the Ontological  
Status of Creativity

Before continuing with a more detailed analysis of the notion of creative process, it should be indicated that there is great controversy concerning the ontological status of the concept. A detailed discussion of the various interpretations would constitute a serious digression from the main theme of this dissertation, which is to clarify and elaborate the doctrine of universal relativity. But an attempt should be made to outline these views in order to clarify the standpoint taken with respect to the notion of creativity in this dissertation. The present discussion, then, amounts to a continuation of the general view presented in the preceding sub-sections of this section.

According to the extreme monistic interpretation, Whitehead's notion of creative process is conceived either, as an ultimate subject or substrate of which actual entities are merely modes,<sup>29</sup> or, as an ultimate activity behind all the particular acts in terms of which it manifests or pluralizes itself.<sup>30</sup> In each case, it is conceived as an

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<sup>29</sup>See D. Bidney, "The Problem of Substance in Spinoza and Whitehead," Philosophical Review, vol. 35, 1936, pp. 574-92.

<sup>30</sup>See S. E. Hooper, "Whitehead's Philosophy: Actual Entities," Philosophy, vol. 16, 1941, pp. 285-305.

eminent reality or entity from which actual entities are derivable, and to which they are ontologically subordinate. In this view, Whitehead's creativity is comparable to Spinoza's God, the ultimate ground of all finite things.

This kind of interpretation is expressly repudiated by Whitehead when he states that

Spinoza bases his philosophy upon the monistic substance, of which actual occasions are inferior modes. The philosophy of organism inverts this point of view."<sup>31</sup>

The finite things, actual occasions or actual entities, are the only 'reasons' or 'grounds' or 'agents.' Creativity is the ultimate feature or character of experience exemplified in the agency or self-creation of the individual actual entities. Creativity is not an entity in the same sense that an actual entity is an entity; it is not an act of experience or an agent. Professor Johnson claims that it is not a "fundamental reality possessing ultimate causal power."<sup>32</sup> In other words, it is not an eminent reality existing transcendentally or externally to the individual or finite things which it causes to be.

In another interpretation presented by Professor Leclerc, creativity is conceived as "the generic activity

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<sup>31</sup>PR, p. 98.

<sup>32</sup>See A. H. Johnson, Whitehead's Theory of Reality (2d ed.; New York: Dover Press, 1962), p. 178.

conceived in abstraction from the individual instantiations of that activity."<sup>33</sup> Creativity is the concept of pure activity, an abstraction from the particular entities which constitute the creativity taking particular forms. According to Leclerc, creativity is Whitehead's analogue to Aristotle's 'matter.'<sup>34</sup> It is that ultimate which is formed into particular acts. But it is not a 'hard impenetrable stuff;' it is 'pure activity.' In accordance with the ontological principle, this pure activity exists only as instantiated, i.e., as a particular act of self-creation. To be is to be a particular act of self-creation.

This interpretation seems to over-emphasise the self-creation of actual entities and over-estimate the status of the ontological principle. It neglects the co-ultimacy of the notions of the one and the many, or conjunctive unity and disjunctive diversity. Leclerc does not stress sufficiently the full meaning of creativity as involving both the one and the many, both particularity and relatedness. Yet the full meaning is suggested in a statement which he himself quotes from Whitehead: "The creative advance of the world is the becoming, the perishing, and the objective immortalities of those things

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<sup>33</sup>Leclerc, Whitehead's Metaphysics..., p. 84.

<sup>34</sup>Leclerc, Whitehead's Metaphysics..., p. 82.

which jointly constitute stubborn fact."<sup>35</sup> Creativity is more than the self-creation or becoming of the particular actual entity; it also includes the perishing and objective immortality, the being of the actual entity. It involves the interrelation of the notions of becoming and being, of self-creation and perishing, of concrescence and transition. An adequate understanding of the creative process requires emphasis on both the internal and external aspects of the actual entity. Also, as ultimate principle it is the universal character of existence or concrete experience, interrelating the ontological principle and the principle of relativity. The ontological principle is expressed in the notion of the act of self-creation of the particular actual entity. The principle of relativity is expressed in the notion of the objectification of one particular actual entity in another. The principle of process is expressed by the notion of creativity which is analysed in terms of the interrelation of the two former notions: It is the advance from a plurality of objectified entities to the self-creation of a novel particularity.

Professor Christian claims that the term 'creativity' is an alternative expression for what he refers to as the 'originality' of particular actual entities, and that it is

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<sup>35</sup> See PR, p. viii.

ultimate only in terms of its generality as a description.<sup>36</sup> Hence, it may be replaced by the term 'originality' which refers to the self-creation and uniqueness of particular actual entities. Accordingly, the term 'creativity' does not refer to any feature in experience which may be distinguished from those expressed in the notion of the unique self-creativity of the actual entity.

Christian's view like that of Leclerc, over-emphasises the self-creativity of the actual entity. It is worth considering the former view separately, however, in order to emphasise the idea that creativity is a feature of experience which is quite distinct from the feature expressed in the notion of the unique self-creativity of the actual entity. This latter notion expresses what in the category of the ultimate is referred to as the 'singularity' or the 'one-ness' that is found in experience. But there is also the feature of 'multiplicity' or plurality in experience. And finally there is the creative advance from the multiplicity of things to a singular unity which is a new addition to experience. Creativity, then, is a feature of experience which is distinct from, although it is inclusive of the singularity or unique self-creativity of the actual entity. It is the most universal

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<sup>36</sup>See W. Christian, An Interpretation of Whitehead's Metaphysics (New Haven: Yale University Press, 1967), p. 13.

feature of experience--not in the abstract, but in the concrete sense, as involved in every item of experience.

Professor Hartshorne rejects the idea of creativity as principle in the sense of ultimate metaphysical ground in relation to which all things are derivatives or consequents.<sup>37</sup> In contrast, he states that it is "an 'analogical concept' functioning in Whitehead's system somewhat as 'being' functions in Aristotelian theology."<sup>38</sup> It is not an agent but agency as such. Creativity is a property which is exemplified in a particular way by each act or occasion. It is the abstract notion of power which is real only in the individual instances. Creativity is not a thing or an actual entity, but a concept.<sup>39</sup>

To compare Whitehead's creativity to Aristotle's being is simply to raise the fundamental metaphysical question: What is being? What is creativity? For Aristotle's notion is not explanatory. It is that which is to be explained. Aristotle's metaphysics deals with "being qua being--both what it is and the attributes which belong to it qua being."<sup>40</sup>

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<sup>37</sup>See C. Hartshorne, "Whitehead on Process: A Reply to Professor Eslick," Philosophy and Phenomenological Research, vol. 18, 1958, p. 517.

<sup>38</sup>C. Hartshorne, A. H. Johnson, and V. Lowe, Whitehead and the Modern World (Boston: Beacon Press, 1950), p. 40.

<sup>39</sup>See Hartshorne, "Whitehead on Process...", p. 517.

<sup>40</sup>Aristotle, "Metaphysics," trans. Sir David Ross, The Basic Works of Aristotle, ed. R. McKeon (New York: Random House, 1971), VI, 1, 1026a, p. 779.

Also, if creativity is merely a concept denoting properties of actual entities, then the interrelation of the one entity with the many entities leading to the production of novelty is simply accidental. According to the view Hartshorne seems to be advocating, creativity simply denotes the accidental occurrence whereby the many become one. Yet Whitehead states: "It lies in the nature of things that the many enter into complex unity."<sup>41</sup> In other words, creativity 'lies in the nature of things.' It is, as such, a distinct and necessary feature of experience which is the many necessarily entering into the complex unity of the one.

According to Professor Johnson, creativity is not an actual entity, or a reality more ultimate than actual entities. It is an eternal object.

In Whitehead's broadly Platonic language, creativity is an Idea (eternal object) which is exemplified in particular actual entities. More specifically, the creative process whereby one actual entity appropriates data provided by other actual entities, and so constitutes itself, is an exemplification of the eternal object creativity.<sup>42</sup>

It should be emphasised, however, that creativity as eternal object does not exist in complete abstraction from experience. For eternal objects are elements in experience. Also, it should be stressed that Whitehead specified the fundamentality

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<sup>41</sup>PR, p. 25.

<sup>42</sup>Johnson, Whitehead's Theory of Reality, p. 70.

of both actual occasions and eternal objects. Eternal objects are fundamental in that they are effective and necessary. The eternal object provides experience with its definiteness and objective relatedness. Creativity as ultimate eternal object, is present in every item of actuality. It is a universal and necessary feature of experience.<sup>43</sup>

This view has been objected to on the basis that since all entities must be specific instances of Whitehead's eight categories of existence, and since creativity does not fit into this classification, it cannot be an eternal object.<sup>44</sup> This objection is based on the view that creativity is an explanatory principle, the ultimate reason or ground. But if creativity cannot be classified among the categories of existence, it has no effect in experience, and its function as explanatory principle becomes otiose. It is neither an element in, nor necessary to experience. In addition, no support can be derived from experience for its ultimacy. How it is to be understood as ultimate principle seems even more difficult than before.

That Whitehead considered creativity to be important seems to be rather obvious. It is presented in the category

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<sup>43</sup>See A. H. Johnson, "Whitehead as Teacher and Philosopher," Philosophy and Phenomenological Research, vol. 29, 1929, p. 374.

<sup>44</sup>See W. J. Garland, "The Ultimacy of Creativity," The Southern Journal of Philosophy, vol. 7, 1969-70, pp. 361-76.

of the ultimate as one of the "ultimate notions"--that in which two other "ultimate notions," the one and the many are interrelated. Creativity is "the ultimate metaphysical principle."<sup>45</sup> It is the principle whereby the many actual entities become one new actual entity. The question is, in what sense is the phrase 'ultimate metaphysical principle' to be understood?

Reverend Stokes conceives creativity as an infinite principle to which the process of actualization of actual entities is ascribed.<sup>46</sup> That he understands this in a Spinozistic fashion is made clear in his contention that "comparisons with Spinoza's metaphysics show that Creativity is the ultimate subject which individualizes itself in a plurality of modes"<sup>47</sup> In accordance with this view the notion of the principle of creativity would be most appropriately expressed as the ultimate ground of which the actual entities are logical consequents. The principle of creativity understood in this sense is arrived at by the intellectual process, a process of reasoning from the consequents, which are actual entities, to the antecedent reason, which is creativity.

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<sup>45</sup> PR, p. 26.

<sup>46</sup> See W. Stokes, "The Function of Creativity in Whitehead's Metaphysics" (Unpublished doctoral dissertation: St. Louis University, 1960), p. 104, and p. 365.

<sup>47</sup> Stokes, "The Function of Creativity...", p. 80.

Whitehead, however, seems to reject such a view. He states that

Spinoza's 'modes' now / in Whitehead's philosophy<sup>7</sup> become the sheer actualities; so that though analysis of them increases our understanding, it does not lead to the discovery of any higher grade of reality.<sup>48</sup>

In other words, there is no eminent reality or rational ground beyond actual entities, which can be arrived at exclusively or primarily through an intellectual process. There is nothing beyond the limitations of finite experience. Creativity is the ultimate feature of matter of fact or experience. It is an element of primitive, i.e., non-cognitive or prehensive experience. It is the primary character of such experience. Hence, it is not something arrived at simply or primarily through the intellectual process of deductive inference. Creativity is discoverable in perception, understood in the special sense of prehension.

Professors Garland and Neville argue that creativity is a principle in the sense of ultimate ontological explanation or reason accounting for the universal and necessary features of experience, relating in particular to the question of why things become unified in a novel way.<sup>49</sup> Garland contends

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<sup>48</sup>PR, p. 10.

<sup>49</sup>See Garland, "The Ultimacy of Creativity," pp. 361-76; also, see R. C. Neville, "Whitehead on the One and the Many," The Southern Journal of Philosophy, vol. 7, 1969-70, pp. 387-93.

that since concrescence and transition are species of creative process, the latter is the ultimate explanation of both unity and novelty in the universe. For, determinate unity, in Garland's view, is associated with concrescence, and novelty with transition. Neville claims that although creativity is intended to be the ultimate explanation as to why there exist events in creative unification, it fails in this function. He argues that it amounts simply to a descriptive generalization of the fact that every occasion of experience is a creative unification of data. But this, concludes Neville, is an inadequate ontological explanation. Professors Garland and Neville, then, seem to agree that Whitehead presents creativity as the ultimate ontological explanation of universal and necessary features of experience, namely, unity and novelty. They disagree in that whereas Garland thinks creativity is adequate in this regard, Neville thinks it is inadequate.

Both interpretations, however, seem to overlook the essential empiricism of Whitehead's method and its significance with respect to creativity. Whitehead states: "The primary method of philosophy is descriptive generalization."<sup>50</sup> Metaphysics, in other words, is a description in terms of the most general notions which are applicable to all the details of practical experience. The starting point is the tentative

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<sup>50</sup>PR, p. 13.

statement or postulation of general principles. The "subsequent elaboration should elucidate the meanings."<sup>51</sup> The statements of the general principles are the most general expressions of fundamental features of experience. In Process and Reality the most general notion of such a feature is creativity, understood as interrelating the one and the many. Creativity is the general notion of the ultimate feature of concrete experience. And the business of philosophy is "to explain the emergence of the more abstract from the more concrete."<sup>52</sup> Creativity, then, is what is to be elucidated by analysis, and this is outlined in the categories of explanation. The categories of explanation are 'the more abstract' and constitute the analysis of creativity which is 'the more concrete.' Creativity, then, is a feature of experience or fact which is to be elucidated, not itself an explanation of something beyond its limitations of experience.

Professor Neville thinks that Whitehead's position is that it is impossible to say why there are creative actual entities.<sup>53</sup> This does not appear to be a correct assessment of Whitehead's view. Whitehead explains why there are creative

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<sup>51</sup>PR, p. 16.

<sup>52</sup>PR, p. 10.

<sup>53</sup>See Neville, "Whitehead on the One and the Many," pp. 387-93.

unities in terms of how they are so. In other words, the explanation as to why actual entities exist as creative unities is given in terms of their own self-creation.<sup>54</sup> The agency whereby they are creative resides in their own constitutions. Hence, Whitehead believes it is indeed possible to say why there are creative unities, but he does not believe it is necessary to appeal to an agent said to exist beyond the individual agents in experience. This view is dependent on a clear understanding of the significance of self-creation, which is that the value of an individual activity resides in the activity itself. It is its own raison d'etre. This is not to say that there is no God in Whitehead's reality. God, however, is one of the individual actual entities of experience. He does not exist as agent beyond--in the sense of 'separate from' or 'external to'--actual entities. He exists with them, not as the source of their agency, but as the actual entity which makes available the general aims that initially unify their internal relations. Hence, although Whitehead presents a description of experience, it is not necessarily inadequate as an ontological account of why there are creative unities.

In summary then, the term 'creativity' does not refer to a substance or substantial activity which is an eminent

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<sup>54</sup>See chapter II, section 2 above, for details concerning the notion of self-creation.

reality above and beyond the finite individuals of experience. Creativity is not an entity in an actual sense. Neither is it the ultimate rational ground. But it is not reducible to complete non-entity in the sense in which that means it has no effect in experience. Creativity is an element of experience, distinct from but inclusive of the self-creation of actual entities. It involves the interrelation of the processes of self-creation and objectification of actual entities.

Creativity is the ultimate principle in Whitehead's ontology. It is a condition or feature not separate from, but an element in experience. According to Professor Johnson, Whitehead admitted in conversation that "ultimate principles like 'creativity' are not contingent possibilities--i.e., they receive exemplification in all actual entities, at all times."<sup>55</sup> Creativity in other words, is an ultimate and necessary feature of experience. It is discoverable not by deductive inference but by observation of experience, and as ultimate, it is that which is to be elucidated by analysis.

The notion of creative process expresses the principle or character of the relative solidarity of the universe. In other words, it refers to a unity which involves novelty. What is novel is the unity that is re-created in each moment of existence. The solidarity of the world is its unity

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<sup>55</sup>Johnson, "Whitehead as Teacher and Philosopher," p. 374.

determined from a standpoint, the standpoint which is a given individual moment of actuality. Such solidarity is relative to those standpoints which characterise it in individually unique ways. There is no single completed unity of actual entities. Creativity refers to the fact of relative solidarity, a unity which is novel in each occasion of experience.

It is a process of advance from disjoined or uncoordinated plurality of individual actual entities to a conjoined unity, which is a novel addition to the plurality it unifies. Unity and plurality are ultimate notions involved in the description of experience. Creativity is the ultimate notion of their interrelation. Unity is analysed in terms of the concrescence of the actual entity, plurality in terms of the transition from actual entity to actual entity. Creativity is analysed as the interrelation of concrescence and transition. In so far as the latter notions denote modes of relatedness, creativity is the fundamental notion in the doctrine of universal relativity.

### 3. Creativity

This section involves a more detailed discussion of the notion of the creative process, a more detailed analysis of its character as creative. This is carried out in terms of the interrelation of pairs of notions already discussed in the previous two chapters, particularly the notions of

concrecence and transition. Creativity is fully analysed in terms of the interrelation of the internal and external aspects of actual entities, each of which is developed in terms of the theories outlined in the two preceding chapters.

(a) Concrecence and Transition

Whitehead specifies the fundamentality of the inter-relation of concrecence and transition in the following way:

In the philosophy of organism it is held that the notion of 'organism' has two meanings, interconnected but intellectually separable, namely, the microscopic meaning and the macroscopic meaning.<sup>56</sup>

The "microscopic meaning" refers to the process of concrecence, the "macroscopic meaning" to the process of transition. Each is "intellectually separable" or separate in analysis, but "interconnected" in fact. They constitute interrelated or complementary descriptions of the one "organism" which is the creative process.

Concrecence refers to the internal constitution of the actual entity. Each concrecence is an internal synthesis of relations. The synthesis may be analysed in terms of prehensions or eternal objects, or both. The actual entity is an individual unity of experience in virtue of this synthesis. This may be more clearly understood in terms of the phases of

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<sup>56</sup>PR, p. 151.

the concrescence. Firstly, the conformal phase is the reception and selection of initial data by the actual entity that is concrescing. In this phase, other entities (the data) are received and selected by the concrescing occasion in its primary, physical prehensions. The other entities are thereby integrated in the internal constitution of the concrescing actual entity. Secondly, the supplemental phase is the modification of the selected initial data of the concrescing actual entity. This involves the emergence of a conceptual prehension from the primary or physical prehensions, and it constitutes the private or subjective aspect of the prehending actual entity. It distinguishes that entity as a novel occurrence. Thirdly, the final phase is the satisfaction which is the determinate effect of the interplay of the internal relations of the actual entity. It is the completion of the synthesis in a definite and complex feeling of the synthesis or unity.

Transition is the process whereby a completed actual entity contributes to other actual entities beyond itself. Each actual entity, upon the completion or perishing of the subjective or internal process, acquires the status of an object. The entity at this point lacks subjective immediacy and possesses objective or external character. This objective character is the partially determinate or definite quality of an actual entity, a quality which possesses the capacity for further determination. Transition is the process of formation

and persistence of the objective character of an actual entity. It is a process of relatedness, by external or objective character, among actual entities.

Concrescence and transition are interrelated or complementary aspects of the one creative process. Each presupposes the other.

Concrescence involves the reception of data from past or completed actual entities. This notion presupposes transition in that it depends on the acquisition and persistence of objective character by the actual entities which constitute the data. Unless those actual entities perish and acquire objective character which persists in the process of transition, there can be nothing to receive by the concreting actual entity. The initial phase of the concrescence which is the reception of data involves in its meaning the notion of the process of transition whereby the data are formed and persist.

The transition, however, is only effective in constituting a completed actual entity as datum in a concreting actual entity in virtue of the prehensive reception of the objective character of the completed actual entity in the concrescence of the concreting actual entity. If there were no actual entity which were not subjectively immediate, i.e., not in the process of concrescence, there would be no reception of data. Hence, there would be no effective transference of objective character. The transition is effective only when

the data are prehended by the concreting actual entity. The effective persistence of the actual entity which is 'object' depends on the actual entity which is 'subject.' So the notion of concrecence is presupposed in the notion of transition.

The mutual presupposition of the process of concrecence and transition constitutes their interconnectedness. They are, in effect, different although complementary analyses of the one creative process. The interrelatedness of the processes of concrecence and transition may be developed in terms of the analytic components of those processes in the way outlined below.

Before continuing with the development of this analysis, however, it should be noted that the interrelation of concrecence and transition precludes an infinite regression in the notion of the 'one creative process.' It signifies that the latter is not a strictly continuous, literal flow of experience. The two species of the process refer to different types of relatedness. Concrecence is the internal relatedness or synthesis of data whereby an actual entity becomes a determinate unity of experience. This process is not continuous beyond its final phase of satisfaction. The satisfaction consists in the internal integration of relations in a determinate individual experience. The concrecence of a given actual entity, as a synthesis of data, can only take

place if the concrescence of other actual entities are discontinuous processes, i.e., if their internal processes have been completed or have reached the phase of satisfaction. For the transition whereby those actual entities are constituted as data in the given actual entity depends on the cessation or perishing of their concrescences. Transition is not the continuation of concrescence. It is the process of the relatedness of external or objective character which is acquired by the actual entity upon the completion of the concrescence. The whole creative process, which consists in the interconnection of concrescence and transition, is not strictly continuous. There is no continuity of complete actual entities in the same mode of existence.

(b) Immanence and Objectification

The notion of immanence is an element in the analysis of the internal constitution or concrescence of an actual entity. Objectification is a stage in the analysis of the process of external relatedness or transition among actual entities. The two are interrelated, complementary aspects of the creative process, although immanence is said by Whitehead to be the more fundamental: The "doctrine of 'immanence' [ ]...\_7 governs the whole treatment of objectification [ ]...\_7.

The doctrine of immanence is fundamental."<sup>57</sup>

The physical prehension is the non-cognitive perceptual relation whereby a feeling or prehension in a prehended entity is reproduced in the prehending actual entity. It is the element of the internal constitution of an actual entity which introduces into that entity an aspect of conformation in respect to the past of that actual entity. The physical prehension does not merely represent a past entity in the present one, but re-enacts part of the former in the latter. Hence, there is partial identification of the contents of past and present actual entities. This is the basis of Whitehead's theory of immanence, in accordance with which there is concrete relatedness among diverse occasions of experience. Accordingly, there is concrete continuity of aspects of actual entities.

Objectification refers to the way in which one actual entity is made available as datum for constitution in another actual entity external to itself.<sup>58</sup> In virtue of the objective character acquired upon the completion of its internal process, the actual entity involves the capacity for determination in others. In other words, the quality which generally defines

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<sup>57</sup>A. N. Whitehead, a letter quoted by D. Emmet, Whitehead's Philosophy of Organism (2d ed.; London: Macmillan; New York: St. Martin's Press, 1966), pp. xxii-xxiii.

<sup>58</sup>See the discussion of the problem of objectification above, chapter IV, section 3(d).

or determines an actual entity as such and such an object, is also a potentiality. This potentiality constitutes the capacity of the actual entity for being constituted in others. Objectification is the process whereby the objective character or quality is available for reception by another actual entity. According to this theory, the past is in the present, not simpliciter, but under limitations. Objectification refers to the availability of the objective character of the actual entity, not the actual entity in its completeness. The objective character is acquired only upon the completion of the internal process of the actual entity. Hence, it is simply an aspect of that entity. Objectification refers to the availability of this objective character for constitution in other actual entities.

Immanence and objectification are interrelated and complementary aspects of the one creative process. Each presupposes the other.

The immanence of an actual entity in another in virtue of the physical prehension of the other, is the actual reproduction of an aspect or element of a past or completed actual entity in a present one. It presupposes the notion of objectification in that it is understood to receive the datum which is the objective character of an actual entity provided in, or made available by objectification. It transforms that character into subjective feeling: The objective datum is

re-enacted. The physical prehension would have nothing to re-enact without the occurrence of objectification. Objectification makes available the data received and transformed by the physical prehension of an actual entity. The data constitute the conditions of the subjective content of the actual entity which receives them. The physical prehension is the feeling of the data provided by objectification.

Objectification is dependent on immanence. For there is only an effective transference of objective character made available in objectification when that character is received in the physical prehension of an actual entity. Objectification is the activity of making concrete data available for concrescence in actual entities. In this way, the notion of objectification presupposes the notion of immanence.

Whitehead seems to assign greater importance to the theory of immanence. This seems to follow from the notion of the fundamental self-creativity of the actual entity. Since the actual entity is self-creative, the process of creation or causation begins with the physical prehension of data. The past or objectified actual entity is said to be an efficient cause of the present or prehending actual entity. But efficient causation refers simply to the provision of objective conditions for the subjective content of the prehending actual entity. For Whitehead, efficient causation is less fundamental than self-causation.

The fundamentality of the theory of immanence seems to be entailed. The theory of objectification is the analysis of a general or objective relatedness among diverse actual entities, relatedness specified in terms of the objective diversity of those entities. This theory is governed by the theory of immanence which consists in the analysis of a determinate relatedness specified in terms of the literal transfer of feeling from actual entity to actual entity. In both theories, however, there is only partial identification of the related actual entities. So there is no continuity of complete actual entities, no flow of experience in the strict sense.

(c) Conceptual Prehension and Ingression

Conceptual prehension is an element in the analysis of the internal relatedness of actual entities. Ingression (in one sense)<sup>59</sup> is an element in the analysis of the external relatedness of actual entities. Conceptual prehension and ingression (in the sense indicated here) are interrelated aspects of the one creative process.

Conceptual prehension is involved in the supplemental phase of the actual occasion. It consists in both the reception

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<sup>59</sup>It should be recalled that the term 'ingression' is ambiguous in Process and Reality. In the present subsection, reference is made only to its meaning as an external relation. See chapter IV, section 3(d) below.

of an eternal object, and a reaction to it. In virtue of the reaction, the conceptual prehension is a determinate relation between an actual entity and an eternal object. For example, the feeling which is 'this definite angry feeling' involves a conceptual prehension determining the eternal object 'anger' to a concrete moment of experience.

Ingression (in what may be its intended though not univocal use) refers to the availability of an eternal object for constitution in an actual entity. The eternal object possesses a capacity for interpretation or determination in the concrescence of actual entities. Ingression is the availability of these abstract data for prehension by actual entities. The eternal object involves indeterminacy as to its ingression in specific actualities. Its ingression or availability, in other words, is an indeterminate or general relation. For example, the eternal object 'grey' is indeterminately or generally related to the group of actual entities which is 'this specifically grey stone' and the group of actual entities which is 'that specifically grey suit.'

Conceptual prehension and ingression are interrelated aspects of the creative process. Each presupposes the other.

Conceptual prehension in its reception of an eternal object presupposes the notion of ingression in that it requires the availability of an eternal object with the capacity for determination in an actual entity. The notion of

determination (by conceptual prehension) requires the availability of something with the capacity for determination. It is in virtue of the reception by conceptual prehension of an available eternal object that an actual entity acquires the definiteness which distinguishes it from others.

The notion of ingression presupposes the notion of conceptual prehension. For, ingression refers to the process whereby the eternal object becomes available for entrance into actual entities. This implies the notion of conceptual prehension. For conceptual prehension is the actual reception whereby there is actual entrance of the eternal object into the actual entity. The eternal object made available by ingression, becomes constituted in the actual entity by conceptual prehension. Ingression refers to the availability of abstract data, conceptual prehension to the actual reception of the data.

#### (d) Satisfaction and Objective Immortality

The satisfaction is the final feeling in the process of internal relatedness or concrescence of the actual entity. Objective immortality refers to the persistence of the objective character of the actual entity upon the completion of its internal process. The two notions are complementary features of the one creative process.

The satisfaction is the fully determinate feeling of the actual entity as a whole. It is the final feeling in the internal process of synthesising data. The satisfaction is the feeling of the fullness of the actual entity. It is felt as a unit of experience with a determinate bond to other items in experience. The satisfaction closes up the actual entity into a determinate unity of feeling. It is the complete actual entity felt as the interrelation or synthesis of its parts. It is the one determinate complex feeling which is this synthesis. In this sense, the satisfaction is the completion of the internal process of concrescence.

The notion of objective immortality denotes the persistence of the objective character acquired by the actual entity upon the completion of its internal process. It is in the nature of things that actual entities become objects whereby they exist as determinate data for prehension by other actual entities. The perishing of the internal process of concrescence involves the acquisition of objective status. The actual entity acquires the objective character which qualifies the actual entity as datum for other actual entities. As datum the actual entity possesses the capacity for further determination in others. At this point, the internal process has ceased; the external process has superseded it. Objective immortality refers to the persistence of the objective data

of the actual entity.<sup>60</sup>

Satisfaction and objective immortality refer to inter-related aspects of the one creative process. Each presupposes the other.

The satisfaction is the feeling which constitutes the determinate unity of the actual entity with a determinate bond to other entities. The determinate bond in the satisfaction is the relation of the given actual entity with entities beyond itself, a relation which is settled in the phase of satisfaction. This seems to be what Whitehead means when he says that "in respect to the entity in question the satisfaction can only be considered as a creative determination by which the objectifications of the entity beyond itself are settled."<sup>61</sup> This notion is illustrated by our visual perception of a picture in which

the pattern of colours is 'given' for us. But an extra patch of red does not constitute a mere addition; it alters the whole balance. Thus in an actual entity the balanced unity of the total 'givenness' excludes anything that is not given.<sup>62</sup>

The satisfaction is the "balanced unity" which "excludes" other factors in the synthesis of the "given" data. The actual entity, via the exclusiveness in the satisfaction of entities

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<sup>60</sup>See chapter IV, section 3(f) above, for a discussion of the notion of objective immortality.

<sup>61</sup>PR, p. 102.

<sup>62</sup>PR, p. 58.

beyond itself, thereby determines its relations to such entities. This notion presupposes the notion of the objective immortality whereby the objective data of the actual entity transcend its own internal process to become effective in actual entities beyond that actual entity. For the notion of relations beyond an actual entity in concrescence being determined by that actual entity (in its satisfaction) can only be understood in terms of those relations and the other entities which are the relata. This is what Whitehead seems to mean when he says that "the satisfaction of an entity can only be discussed in terms of the usefulness of that entity."<sup>63</sup> The "usefulness" of the actual entity refers to its objectification or availability as concrete data for constitution in other actual entities, a function whereby the former actual entity is 'immortal.'

Objective immortality refers to the persistence of the objective character acquired by the actual entity upon the completion of its internal process in the phase of satisfaction. This notion presupposes the notion of satisfaction in that the character, which persists through its constitution in other actual entities, emerges from the satisfaction. The objective character of the actual entity is abstracted from the satisfaction, thereby becoming available for prehension

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<sup>63</sup>PR, p. 102.

by other actual entities. In objective immortality, the actual entity which has completed itself in the satisfaction, functions as object, persisting via its constitution in other actual entities.

#### 4. Summary and Conclusion

The category of the ultimate is the most general statement of the doctrine of universal relativity or the ultimate relatedness of experience. It is presented in terms of three distinct notions, namely, the one, the many, and creativity. Each of these notions expresses a distinct aspect of the ultimate character of experience. Taken together, they constitute the most general description of that character.

The doctrine of process is the full analysis of the notion of creativity in the category of the ultimate. Creativity involves the interrelation of the other two notions, the one and the many. As such, it is the most comprehensive conception of the universal relatedness of experience. The doctrine of process develops this notion and the interrelation of unity and plurality in terms of concrescence and transition--concrescence referring to the notion of unity as a synthesis of data, transition expressing the notion of plurality in terms of objective diversity. Concrescence and transition are complementary aspects of the one creative process.

The doctrine of process constitutes an analysis of a fundamental principle, the principle of process. This principle is a basic feature or condition of experience. It is expressed in terms of the interrelation of the ontological principle and the principle of process; it is fully analysed in terms of the interrelation of internal and external relations. The principle of process is the ultimate character of experience, its rhythmic creative advance.

Creative process is not mere evolutionary change, or serial progression towards an Absolute which comprises all experience. It consists in the rhythmic transformation of a plurality of already completed actual entities into a unity of experience which is a novel actuality among the plurality. The rhythm consists in the alternation from unity to plurality, and back again from plurality to unity. The rhythmic alternation is an advance, since it always involves novelty.

The creative process is analysable in terms of the interrelation of its two species, namely, concrescence and transition. In other words, it is at once the emergence by internal synthesis of a plurality of entities (made available in objectification) into a new unity of experience, and the objectification of this unity for synthesis in yet other unities newly emerging. Concrescence is the internal or 'microscopic meaning,' transition the external or 'macroscopic meaning,' of process. Taken together, the two constitute the full concept of creative process.

## GENERAL SUMMARY AND CONCLUSION

In Process and Reality, Whitehead deals with the fundamental metaphysical problem, which, in Aristotle's terms, is the problem of 'what that is which is in this sense.' It is the problem of how to conceive a 'complete fact' of experience. Aristotle attempts to resolve this problem with his notion of primary substance. Whitehead, however, rejects this notion and substitutes for it the theory of actual entities. The doctrine of universal relativity expresses the basic character of actual entities and the formal, general statement of the latter in his categoreal scheme is the category of the ultimate. This category constitutes the beginning of Whitehead's analysis of the notion of a 'complete fact.' It is involved in his attempt to resolve the fundamental metaphysical question.

According to the category of the ultimate, the 'complete fact' is a process of creative advance. In other words, creative advance is the ultimate or most universal character of experience. It is analysable into the rhythmic and novel interrelation of the one and the many, of unity and plurality. The one and the many are conceived in terms of relations: The one is conjunctive unity, the many, disjunctive diversity. Hence, the most universal character of experience is analysable in terms of relations. It is this character of which the doctrine of universal relativity is an analysis.

The latter constitutes an explanation of how each particular entity is present in every other. This is not to say that the process of creative advance is a serial progression towards an absolute which contains all particulars within itself. But it means that there is a certain connectedness among entities in terms of aspects of their individual character. There is the determinate connectedness of the one, and indeterminate or general connectedness of the many; there is also the rhythmic interrelation between these two types of connectedness. Hence, there is never simply the determinate one, a single unity which completely contains all other ones. There is also the indeterminate many involving individual distinction or diversity.

The category of the ultimate expresses the principle of process or creativity understood as involving the interrelation of the ontological principle and the principle of relativity. The principle of creativity, as such, is the most universal character of experience, and it involves the interrelation of principles or features of unity and plurality. It is that condition which characterises every moment of experience. Each moment is at once a unity, and a distinct member of a plurality of moments.

The notion of the determinate one, or conjunctive unity in the category of the ultimate is analysed in terms of the theory of internal relations. The formal statement of

this theory is presented in category of explanation (xviii) in the categoreal scheme. This category, as Whitehead states therein, expresses the ontological principle. Accordingly, every entity in the universe is analysable in terms of an internal process of determinate relatedness. Each entity synthesises other entities in its internal self-creation. This self-creation is not strictly atomic, but it integrates other entities in its own individual unity.

The self-creative process or concrescence is further analysable in terms of feelings or prehensions. Each entity prehends other entities including them as data in its own constitution. It does not contain the others simpliciter. Any given entity involves only aspects of those other entities. Accordingly, there is a partial identification of the entities in experience, a literal transfer of feeling between entities. This is a statement of Whitehead's doctrine of immanence. Its definition is not incompatible with a certain distinction or diversity among the entities related.

The notion of the indeterminate many or plurality of entities presented in the category of the ultimate is developed in terms of the theory of external relations. The formal statement of this theory may be found in category of explanation (iv) in the categoreal scheme of Process and Reality. This category expresses the principle of relativity. Accordingly, each entity which is a conjunctive unity or concrescence of

other entities is also objectively diverse i.e., generally distinct and generally related to others in terms of its general or objective character. In other words, the entity objectively characterised is generally distinguishable as such and such an object rather than another, yet in virtue of this general character, it is a potentiality for relatedness to other such entities. In its distinction from other entities, then, the objectively characterised entity is potentially related to others. This is an indeterminate or general relatedness, as opposed to the determinate or concrete relatedness of immanence.

The external relation of one entity to others, or its objective diversity from them, involves a partial disjunction and a partial relatedness. But there is no complete separation or complete identity of entities. The entity as object has completed the internal process which is its fully determinate constitution. The entity acquires the character which determines it generally as such and such an object. Yet this character, as general or potential, involves the capacity for further determination in, or relation to other entities. It is a general relatedness, a relatedness in terms of the general content or character of the entities related.

The notion of creativity as involving the interrelation of the one and the many is analysed in terms of the doctrine of process. The formal statement of this doctrine is to be

found in category of explanation (ix) of the categorial scheme, the category which is said therein to express the principle of process. The principle of process is analysable in terms of the interrelation of the ontological principle and principle of relativity, and the interrelation of the theory of internal relations and the theory of external relations. It develops the notion of creativity as the process of advance from a disjoined plurality of entities to a novel individual unity.

The novel individual unity is a new internal synthesis or concrescence. It is the one entity which conjoins in its own internal constitution other items of its experience. The disjoined plurality refers to the many objectively diverse entities. Objective diversity is a form of relatedness, the external relatedness of distinct moments of experience. The creativity is an advance from the many to the one, and a return from the new one to a new many, rhythmically alternating between the one and the many. It can only be fully described in terms of this interrelation.

The analysis of the notion of creative process completes the development of Whitehead's attempt to resolve the fundamental question of metaphysics, How to conceive a complete fact. Accordingly, he argues the complete fact is an individual process characterised by universal relatedness, a notion which may be analysed in terms of the interrelation

of two more special forms of relation, namely, the internal relatedness of the one, actual entity in process, and the external relatedness of the many other entities which constitute the data for that actual entity. It is because the complete fact is a process that the interrelation of notions is required. For the process involves a variety of elements or phases in a synthetic unity, and this may be understood, only in terms of distinct but interrelated notions. The process is not simply one single entity. It is not a particular thing complete in itself. Nor is the process simply many separate entities, each a particular thing isolated in its particularity from other particular things. The process is creative, i.e., it involves both 'one-ness' and 'many-ness.' Whitehead's doctrine of universal relativity is an attempt to explain this notion in a coherent and adequate fashion.

In this regard, Whitehead seems to be generally successful in so far as he attempts to explain the unity ('one-ness') and plurality ('many-ness') in experience in terms of relations. This is the significance in the category of the ultimate of referring to the 'one' as 'conjunctive unity'--the term, 'conjunctive,' indicating relationship. Also, the term, 'disjunctive,' in the phrase, 'disjunctive diversity,' which refers to the notion of the 'many' denotes relationship. The notion of the conjunctive unity of the one is further elaborated in the theory of the synthetic or prehensive actual

entity, which in effect, constitutes a theory of internal relations. The notion of the disjunctive diversity of the many is developed in terms of the theory of objectification or external relations of actual entities.

But Whitehead is not coherent in respect to all details of the theory of universal relativity. For example, there is some confusion concerning the classification of objectification as an external relation. Objectification denotes (1) the availability of concrete data for inclusion in actual entities, and (2) the actual inclusion of concrete data as elements in actual entities. If objectification refers to (1) then it is an external relation having no necessary part to play in the essential constitution of the actual entity. If it refers to (2) then it is an internal relation having a very definite part to play in the essential constitution of the actual entity. Also, it should be noted that whereas objectification is the only term Whitehead uses in Process and Reality to denote (1), he also uses the term, conceptual prehension, to refer to (2). And the analysis of an actual entity in terms of prehensions is an analysis of the internal constitution of the actual entity. The same criticism may be made of ingression. It seems, however, that Whitehead intended that objectification and ingression be considered as part of the theory of external relations, and that their respective counterparts, physical prehension and conceptual prehensions, be classed as internal relations. However, he is far from clear on this matter.

The doctrine of universal relativity in application to various principles and concepts formally presented in the Categorical Scheme of Process and Reality helps to bring out the general coherence of his metaphysics and some of the inadequacies of detail. Classification of these principles and concepts under the headings of distinct forms of relations (internal and external) illuminates connections which are not clearly indicated, in some cases even confused by Whitehead himself. The significance of this elaboration of the doctrine of universal relativity is that it may be employed in determining the coherence of some major concepts in Whitehead's metaphysics, particularly the category of the ultimate, the ontological principle, the principle of relativity, and the doctrine of process.

But the application of the doctrine of universal relativity raises some important questions in the context of human reality. The question of personal identity is a perennial problem which Whitehead does not deal with in a thorough way. The theory of universal relativity entails that the personal unity sensed by the individual human being is the connectedness of the occasions of experience in the history of that individual life. On the one hand, there is internal connection by way of prehensions, and on the other, external connection by way of eternal objects. But the individual seems to possess a strong sense of personal unity which is more than the mere

connectedness of the occasions of his life. Can the theory of universal relativity sufficiently account for such strong unity? Whitehead may be criticised for not dealing thoroughly enough with human personality, but it seems only fair to suspend judgment as to the adequacy of the doctrine of universal relativity in this regard. Further development of that theory may prove worthwhile.

Another question which comes to mind in this context, one which Whitehead again does not deal with adequately enough, is the problem of the immortality of the individual personality. If personality is dealt with in terms of a historical series of occasions which are unified by the interconnection of these occasions, then it would seem that the person ceases to be when this series of occasions is exhausted. This constitutes a rejection of individual immortality and runs counter to religious intuition. But there seems to be some difficulty, due to Whitehead's laxity here, in determining whether or not this in fact is his exact view. For example, he speaks of God as Saviour, who, although not omnipotent, saves all that can be saved. What is 'objectively immortal' in every occasion of experience is contained in His 'consequent nature.' It would appear, then, that there is indeed something of the individual personality which is saved. Again, however, the question cannot be settled until a thoroughgoing theory of human personality is developed.

Whitehead's doctrine of universal relativity bears some resemblance to Einstein's relativistic standpoint. Like Einstein, he believes that space and time are not absolute matters of fact, but relations conditioned by particular circumstances. Unlike Einstein, however, Whitehead's basic entities are not material but processual, not static lumps of matter but units of activity. Furthermore, Whitehead's doctrine of universal relativity, unlike Einstein's view, does not involve the radical contingency of spatio-temporal phenomena. There is a measure of uniformity or connectedness in the Whiteheadian universe. These differences, perhaps, constitute the most significant advance Whitehead makes in relativistic theorising about the cosmos.

In his theory of actual entities and doctrine of universal relativity Whitehead presents a more complete and adequate account of what James called the 'flow of experience.' Although, as the doctrine of universal relativity indicates, Whitehead generally agrees with James as to the experiential basis of the connections between phenomena and objects in the cosmos, he promotes more enthusiastically the individuality of moments in that 'flow of experience.' In Whitehead's view there is indeed a 'flow,' 'flux,' or 'process' involving connections between one moment of experience and another. But the immediate activity in each moment seems to be unique. Whitehead's account preserves this uniqueness, while doing

justice to the connectedness of experience.

Whitehead's struggle with the traditional metaphysical question of being is worthy of admiration. Not only does it signify the vastness of a great mind, it conveys a feeling of reverence for the philosophical pursuit and a sense of wonder at the inexhaustiveness of life itself. Even in his criticism of other great philosophers, always Whitehead seems eager to glean the best of these minds in order to bring out the truth concerning what is 'really real.'

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to something other than itself. The author concludes that Whitehead makes these concessions, that his so-called "dynamic organic pluralism" lies somewhere between Bradley's monism and Leibniz's radical pluralism.

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Carr, H. W., "Professor Whitehead's World Building," Personalist, vol. 11, 1930, pp. 157-63.

Professor Carr thinks that Whitehead is unable to account for unity in experience without the interjection of the notion of mind. He claims that there are no elements in Whitehead's metaphysics which take over the functions of a conscious mind.

Chappell, V. C., "Whitehead's Theory of Becoming," Alfred North Whitehead: Essays on his Philosophy, ed. G. L. Kline, Englewood Cliffs, New Jersey: Prentice-Hall, 1963, pp. 70-80. (This is a republication of the original first published in Journal of Philosophy, vol. 58, 1961, pp. 516-28.)

This author brings out some difficulties associated with Whitehead's notion of the a-temporality of the becoming of an actual occasion. He concludes that Whitehead's notion of a-temporal becoming is unclear.

Christian, W. A., "The Concept of God as a Derivative Notion," Process and Divinity, ed. W. L. Reese and E. Freeman, La Salle, Illinois: Open Court, 1964, pp. 181-203.

Professor Christian claims that the notion of God is not logically basic in Whitehead's metaphysics, that it is a logical derivation from more basic concepts. The significance of this view, it is alleged, is that the concept of God, as a necessary being, is an existentially contingent concept.

-----, "The Mutual Exclusiveness of Whitehead's Actual Occasions," Review of Metaphysics, vol. 2, 1949, pp. 45-75.

The author contends that no two actual occasions have any immediacy of feeling in common. This view seems to contradict Whitehead's theory of immanence. It is discussed in chapter III, section 3(c) in the present dissertation.

Dewey, John, "The Philosophy of Whitehead," The Philosophy of Alfred North Whitehead, ed. P. A. Schilpp, New York: Tudor Publications, 1941, pp. 641-61.

Professor Dewey argues that Whitehead's method assimilates that of mathematics and that this entails an assertion of what the constituents of nature must be. This is in line with the classical tradition in philosophy, but according to Dewey, it is not in accord with the modern trend towards observation of things experienced and analysis of those things in terms of their practical consequences.

Garland, W. J., "The Ultimacy of Creativity," The Southern Journal of Philosophy, vol. 7, 1969-70, pp. 361-76.

This article tries to demonstrate that creativity is the ultimate principle accounting for unity and novelty in Whitehead's system. He conceives the ontological principle as a methodological rule and subordinates it to the principle of creativity. This view is discussed in chapter V, section 2(c).

Hall, E. W., "Of What Use Are Whitehead's Eternal Objects?" Alfred North Whitehead: Essays on his Philosophy, ed. G. L. Kline, Englewood Cliffs, New Jersey: Prentice-Hall, 1963, pp. 102-16. (This is a republication of the original first published in Journal of Philosophy, vol. 27, 1930, pp. 29-44.)

Professor Hall argues that Whitehead invokes eternal objects to account for identity, permanence, universality, abstraction, and potentiality, but that these factors can be accounted for by modifying the notion of actual occasion, which Whitehead conceives as a self-enclosed, atomic particular.

Hartshorne, C., "Organic and Inorganic Wholes," Philosophy and Phenomenological Research, vol. 3, 1942, pp. 127-36.

The author discusses the nature of an organic whole. An organism is a whole of which the parts serve as instruments for a purpose or end-value inherent in the whole.

-----, "Ontological Primacy: A Reply to Buchler," Journal of Philosophy, vol. 67, 1970, pp. 979-86.

Professor Hartshorne deals with two alleged deficiencies in Whitehead's metaphysics: (1) The incongruity of eternal objects, and (2) the problem of the concreteness of societies. He argues that the meaning of the term eternal object, must be restricted, and that the notion of society as nothing more than its objectification in some actual entity must be made clearer than it is in Whitehead's account.

-----, "The Social Structure of Experience," Philosophy, vol. 36, 1961, pp. 97-111.

The author presents the process philosopher's view of the problem of other minds: Do others feel what I feel in the same way that I do? Hartshorne argues that we know other minds by analogical extension whereby we participate in some instances of other minds.

-----, "Whitehead on Process: A Reply to Professor Eslick," Philosophy and Phenomenological Research, vol. 18, 1958, pp. 514-20.

Professor Hartshorne discusses the meaning of process. He claims that it is clarified in terms of the notions of perishing, creativity, and actuality.

-----, "Whitehead's Idea of God," The Philosophy of Alfred North Whitehead, ed. P. A. Schilpp, New York: Tudor Publications, 1941.

The author argues that Whitehead conceives God not as wholly absolute but partly relative, yet at the same time supreme. On the one hand, God possesses, as part of His nature, an absolutely fixed, self-identical, abstract character. On the other hand, He possesses, as another part of His nature, a dynamic character which is changed or enriched by the development of actual entities in the world. God is supreme in the accuracy and adequacy of His knowledge, and, in the adequacy of His purposes and decisions.

-----, "Whitehead's Novel Intuition," Alfred North Whitehead: Essays on his Philosophy, ed. G. L. Kline, Englewood Cliffs, New Jersey: Prentice-Hall, 1963, pp. 18-26.

Professor Hartshorne claims that Whitehead's novel intuition is best characterised by the notion of creativity as 'the many which become one and are increased by one.'

Hocking, W. E., "Whitehead as I Knew Him," Alfred North Whitehead: Essays on his Philosophy, ed. G. L. Kline, Englewood Cliffs, New Jersey: Prentice-Hall, 1963, pp. 7-17.

A personal account.

Hooper, S. E., "Whitehead's Philosophy: Actual Entities," Philosophy, vol. 16, 1941, pp. 285-305.

A monistic interpretation of Whitehead's theory of creativity and actual entities. This view is criticised in the present dissertation chapter V, section 2(c).

-----, "Whitehead's Philosophy: Eternal Objects and God," Philosophy, vol. 17, 1942, pp. 47-68.

A continuation of the previous article on actual entities, with special emphasis on the concepts of eternal object and God.

Johnson, A. H., "A Criticism of D. Bidney's 'Spinoza and Whitehead,'" Philosophical Review, vol. 47, 1938, pp. 410-14.

Professor Johnson opposes the view that creativity is one substrate underlying modal individuals. He contends that creativity does not exist apart from actual entities.

-----, "Whitehead as Teacher and Philosopher," Philosophy and Phenomenological Research, vol. 29, 1969, pp. 351-76.

A record of discussions between Johnson and Whitehead while the former was enrolled in a graduate tutorial under the direction of Whitehead in 1936-37. The author attempts to clarify Whitehead's theories of actual entity, eternal object, objectification, God, and creativity. His views on the notion of God as principle of concretion are discussed in chapter II, section 1(a) of the present dissertation.

Lawrence, J. W., "Whitehead's Failure," The Southern Journal of Philosophy, vol. 7, 1969-70, pp. 427-35.

Professor Lawrence claims that the success of Whitehead's metaphysics depends on the adequacy of the notion of prehension. He argues that Whitehead's system, therefore, is a failure because there is a conflict in the explanation of prehension between the theory of epochal becoming and the genetic analysis of concrescence.

Leclerc, I., "Form and Actuality," The Relevance of Whitehead: Philosophical Essays in Commemoration of the Centenary of the Birth of Alfred North Whitehead, ed. I. Leclerc, London: Allen and Unwin; New York: Macmillan, 1961.

A consideration of the nature and role of form in Whitehead's metaphysics. The author thinks that form and act are ultimates constituting two poles in the total fact.

-----, "Internal Relatedness in Whitehead: A Rejoinder," Review of Metaphysics, vol. 6, 1952-53, pp. 297-99.

An incisive rejoinder to Alston's article on the inconsistency between the principle of internal relatedness and the principle of pluralism in Whitehead's metaphysics. Professor Leclerc argues that in Whitehead's doctrine of relativity there are two principles explained in a way whereby they are consistent with one another. They are the principle of internal relatedness which accounts for the aspect of pluralism and the principle of mutual immanence which accounts for the aspects of connectedness.

-----, "Whitehead and the Problem of God," The Southern Journal of Philosophy, vol. 7, 1969-70, pp. 55-59.

The author's aim is to present an interpretation of Whitehead's concept of God in such a way as to determine its significance in respect to the problem of God creatio ex nihilo.

-----, "Whitehead and the Theory of Form," Process and Divinity, ed. W. L. Reese and E. Freeman, La Salle, Illinois: Open Court, 1964.

A continuation of "Form and Actuality" dealing with the problem as to whether or not Whitehead's eternal objects (forms) are otiose. Professor Leclerc argues that there is a type of relatedness which the eternal objects are invoked to explain, and that this relatedness cannot be explained by the theory of actual entities qua atomic units.

-----, "Whitehead's Philosophy," Review of Metaphysics, vol. 11, 1957-58, pp. 68-93.

A criticism of N. M. Lawrence's thesis that the correct introduction to Whitehead's Process and Reality is to be found in discussing the epistemological questions which are dealt with in the early works. Professor Leclerc contends that the correct introduction is to consider the metaphysical problems in their metaphysical setting, i.e., in the later works, particularly Process and Reality. The central metaphysical problem, according to Leclerc, is, How to conceive a complete fact.

Lee, H. N., "Causal Efficacy and Continuity in Whitehead's Philosophy," Tulane Studies in Philosophy, vol. 10, 1961, pp. 59-70.

Professor Lee's position is that in Whitehead's philosophy there is no real atomism but a full continuity of experience. He claims that Whitehead's statements which appear to propound a theory of simple, indivisible unities are inconsistent with other statements which appear to advocate continuity. This view is criticised in chapter III, section 2(a) of the present dissertation.

Lowe, V., "The Concept of Experience in Whitehead's Metaphysics," Alfred North Whitehead: Essays on his Philosophy, ed. G. L. Kline, Englewood Cliffs, New Jersey: Prentice-Hall, 1963, pp. 124-33.

Professor Lowe indicates that in Whitehead's metaphysics the notion of experience is explained in terms of subjective immediacy or self-enjoyment, which involves a synthesis of elements from elsewhere.

-----, "The Development of Whitehead's Philosophy," The Philosophy of Alfred North Whitehead, ed. P. A. Schilpp, New York: Tudor Publications, 1941, pp. 15-124.

The author tries to illustrate Whitehead's development by articulating and elucidating the goal or aim he was striving towards. That goal or aim was to show how all things hang together.

Murphy, A. E., "Objective Relativism in Dewey and Whitehead," Philosophical Review, vol. 36, 1927, pp. 121-44.

Professor Murphy argues that Whitehead does not adhere to a subjectivist form of relativism, that he claims that relatedness is a fundamental aspect or quality of objective experience itself and not derived from a mind said to exist in separation from objective experience. This view is discussed in chapter IV, section 2(a) of the present dissertation.

-----, "Whitehead and the Method of Speculative Philosophy," The Philosophy of Alfred North Whitehead, ed. P. A. Schilpp, New York: Tudor Publications, 1941, pp. 351-80.

The author's contention is that the method of speculative philosophy is the identification of the completely actual, which is basically aesthetic or emotional. He claims that this basis is not adequate for the general interpretation of experience, that it is not a trustworthy or reliable guide.

Neville, R. C., "Whitehead on the One and the Many," The Southern Journal of Philosophy, vol. 7, 1969-70, pp. 387-93.

In this paper the author discusses the role of creativity and the role of the ontological principle. He argues that the category of creativity does not explain why there is unity in experience, and that the ontological principle is improperly named because it accounts only for cosmological unity, describing how the unity takes place. This view is discussed in chapter V, section 2(c).

Pepper, S. C., "Whitehead's Actual Occasion," Tulane Studies in Philosophy, vol. 10, 1961, pp. 71-88.

This author outlines and evaluates Whitehead's 'root metaphor,' the actual entity. He claims that there is a narrow description--one which is applicable in Whitehead's theory of space-time, and a broad description--one which is applicable to immediate experience and analagous to the purposive act. Pepper argues that the broad description is inconsistent and the narrow description inadequate.

Reeves, G., "God and Creativity," The Southern Journal of Philosophy, vol. 7, 1969-70, pp. 377-85.

The author argues (contra Cobb) that in Whitehead's system the decisive role in the creation of actual occasions is not assigned to God, but to the self-creativity of those occasions. In other words, the originating element in any moment of experience is not the subjective aim but the immediate feeling of the actual entity.

Vlastos, G., "Organic Categories in Whitehead," Alfred North Whitehead: Essays on his Philosophy, ed. G. L. Kline, Englewood Cliffs, New Jersey: Prentice-Hall, 1963, pp. 158-67. (This is a republication of the original first published in Journal of Philosophy, vol. 34, 1937, pp. 253-52.)

The author tries to elucidate the concept of organic relatedness. He claims that it refers to internal relatedness in virtue of which a, for example, is neither existent or conceivable apart from b.

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## APPENDIX 1

### ABSTRACT OF

#### The Doctrine of Universal Relativity in Whitehead's Metaphysics

It is argued that the theory of actual entities and the doctrine of universal relativity together constitute Whitehead's endeavour to resolve the fundamental question of metaphysics, What constitutes a 'complete fact?' Stated in Aristotle's terms it is the problem of "What that is which is in this sense,' or, What is 'being?' Whereas Aristotle dealt with this question in terms of the category of substance, Whitehead argues that the complete fact is an actual entity, a process or activity, which although it involves individual limitations, is essentially related to other such entities. Each actual entity is conditioned, in other words, by its relations to other actual entities. The theories explaining such relations constitute the doctrine of universal relativity.

In this dissertation an attempt is made to clarify this doctrine in terms of a number of important theories, categories, and principles presented in Process and Reality. Hence, it is a study of Whitehead's mature metaphysics.

The categoreal statement of the doctrine of universal relativity in the Categoreal Scheme, a formal outline of Whitehead's system in Process and Reality, is the category of

the ultimate, according to which the actual entity is a creative process. As such, the actual entity is related by conjunction with, and disjunction from other actual entities. The creativity consists in the conjunction of some data from other actual entities to form a new actual entity which is nevertheless disjunctively diverse in some respects from the others with which it is conjoined.

The notion of conjunction is explained in terms of the theory of internal relations, the notion of disjunctive diversity in terms of external relations. This is not to say that Whitehead overlooked the distinctiveness and individuality of actual entities. In his view all actual entities possess a measure of uniqueness. But the creativity of the actual entity involves the interrelation of internal and external relations. This is the gist of the doctrine of universal relativity.