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The Metaphysical Basis of Human Freedom According to Alfred North Whitehead

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THE METAPHYSICAL BASIS OF HUMAN FREEDOM ACCORDING TO ALFRED NORTH WHITEHEAD

by

Thomas Francis O'Brochta

A Dissertation Submitted to the Faculty of the Graduate School of Loyola University in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

June

1973
To Ann, Kathleen and Kevin —
whose love and sacrifice through the
years have made this work possible.
Despite the growing number of works being added to the already large and impressive list of Whiteheadian literature, few authors have offered a detailed examination of Whitehead's explanation of human freedom. Those who have written on the subject have not attempted to follow the thread of Whitehead's speculation through the labyrinth of texts that connect the freedom of individual "actual entities" with the freedom of human beings. Thus, the study of Edward Stevens is a fine analysis of freedom and other related ideas. Yet as Stevens is quick to point out, his treatment of Whitehead's conception of freedom was not intended to be exhaustive, and in fact it makes up but a small portion of the work. 1

Edward Pols and John Cobb have written more extensively on the role of freedom. Pols' important works, especially his recently published book, are excellent critical studies of the metaphysical basis of freedom. 2 However,


his investigations remain on the general level of the metaphysics of freedom and do not consider how on Whitehead's analysis human freedom is explained as a unique kind of freedom "built-up" or "derived" from the freedom of individual "actual entities." While Cobb does examine Whitehead's analysis of human freedom, he does not extensively analyze the unique type of freedom exercised by the regnant actual occasions of the human person or sufficiently trace the link between the freedom of actual entities and that of human beings. Cobb presupposes and leaves unexamined what must be carefully worked out.

This absence of secondary literature is surprising, given the central position occupied by the notion of freedom in Whitehead's metaphysics. It is even more surprising when one realizes the sparsity of passages in his writings explicitly dealing with the metaphysical basis of freedom and the even fewer passages explaining human freedom.

The purpose of this dissertation is to provide an introduction to Whitehead's explanation of human freedom. The first step is to locate the discussion of human freedom within the context of Whitehead's philosophical speculation. In the first chapter, it is shown that Whitehead affirms the reality of human freedom as a stubborn and irreducible fact of common experience, and that he intends to explain this fact philosophically. In the second chapter, Whitehead's explicit analysis of the metaphysical basis of freedom is analyzed. Here the nature of the res verae is investigated, and

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freedom is seen to be grounded in an actual entity's correlative formative principles: in the activity of creativity and the formal specification of eternal objects. In the third chapter, the transition to the macroscopic world of nexus and societies is made. The nature of these "derivative entities" is examined, and the principles for determining man's place in the hierarchy of the macroscopic world is established. In the fourth and fifth chapters, the unique nature of human consciousness and human freedom is investigated in detail. In the sixth and final chapter, the findings of this study are summarized, and a brief concluding evaluation of Whitehead's explanation of human freedom is offered.

I would like to take this opportunity to acknowledge my gratitude to several members of the Department of Philosophy of Loyola University. I wish to thank my readers, Drs. George E. Connelly (adviser), Kenneth F. Thompson, Jr., and Richard Westley for their perceptive criticisms and helpful suggestions. I am also grateful to Dr. Connelly for his encouragement throughout the years of my graduate studies. In this vein, I would like to thank Fr. Torrens Hecht, S. J., former chairman, who guided much of my early graduate work, and especially Dr. Donald O'Grady, who first awakened my interest in philosophy during my undergraduate studies. His love of the intellectual life, his penetrating philosophical insights, and his personal life style have been a source of inspiration.
ABBREVIATIONS

The following abbreviations of the titles of Whitehead's works have been used in footnote references:

<table>
<thead>
<tr>
<th>Abbreviation</th>
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<tbody>
<tr>
<td>AE</td>
<td>The Aims of Education and Other Essays</td>
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<tr>
<td>AI</td>
<td>Adventures of Ideas</td>
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<tr>
<td>CN</td>
<td>The Concept of Nature</td>
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<tr>
<td>D</td>
<td>Dialogues of Alfred North Whitehead</td>
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<tr>
<td>ESP</td>
<td>Essays in Science and Philosophy</td>
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<tr>
<td>FR</td>
<td>The Function of Reason</td>
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<tr>
<td>MT</td>
<td>Modes of Thought</td>
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<tr>
<td>ENK</td>
<td>An Enquiry Concerning the Principles of Natural Knowledge</td>
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<tr>
<td>PR</td>
<td>Process and Reality</td>
</tr>
<tr>
<td>P REL</td>
<td>The Principle of Relativity</td>
</tr>
<tr>
<td>RM</td>
<td>Religion in the Making</td>
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<tr>
<td>S</td>
<td>Symbolism</td>
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<td>SMM</td>
<td>Science and the Modern World</td>
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CHAPTER I

FREEDOM AFFIRMED

The purpose of this chapter is twofold. First, it is to show that Whitehead never appears to have seriously doubted that human freedom is an irreducible and stubborn fact given in the common lived experience of mankind, and that as a consequence, no amount of theorizing can explain away this fact. Second, it is to show that Whitehead's aim is to give a philosophical elucidation of the basis of human freedom.

A. Human Freedom: An Irreducible Stubborn Fact

What is the nature of a fact? What is its relationship to the intellect? The philosophical writings of Alfred North Whitehead can properly be viewed as a prolonged attempt to answer this basic question. Whitehead himself devotes many pages to working out the relationship between fact and theory in the construction of an adequate philosophical exposition concerning the nature of reality. The word "fact" occurs time and again in his philo-
sophical writings,¹ and in the final analysis Whitehead envisions the problem of philosophy as nothing less than "to conceive a complete [unreadable] fact."

In the following chapter we will have occasion to examine in detail Whitehead's conception of the ultimate complete fact. For the moment, let us reflect upon the general character of the problem he is examining. It arises almost immediately and consists in the realization that facts are not all of a kind, nor are they immediately compatible. The facts given in sense experience are not necessarily identical with those given in religious or aesthetic or moral experience, and none are identical with those of Quanta theory or astrophysics or Freudian psychology. Nevertheless, these and other facts all demand a hearing at the bar of speculative reason. Consequently Whitehead can ask quite seriously and pointedly, "What are the evidences to which philosophy appeals?" since "Whether we be ancient or modern, we can


²Adventures of Ideas (New York: Macmillan Co., 1933), p. 203. (Hereafter referred to as AI.)
only deal with things, in some sense, experienced."\(^1\) It is precisely the complexity of experience evidenced by the complexity of the body of fact that constitutes the data upon which philosophy must construct its speculations. The importance of doing justice to all the facts is incorporated into the definition of Speculative Philosophy as it appears in the opening passage of *Process and Reality*. There we find Whitehead defining it as

> the endeavour to frame a coherent, logical, necessary system of general ideas in terms of which every element of our experience can be interpreted. By this notion of 'interpretation' I mean that everything of which we are conscious, as enjoyed, perceived, willed, or thought, shall have the character of a particular instance of the general scheme.\(^2\)

Speculative Philosophy as it came to be conceived by Whitehead is therefore the attempt to make ultimate sense of every element given in experience; it is the endeavor to reduce the facts to their intelligible foundation.

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1. *Al*, p. 287.


Also see *Al*, p. 285 and esp. pp. 290-91: "In order to discover some of the major categories under which we can classify the infinitely various components of experience, we must appeal to evidence relating to every variety of occasion. Nothing can be omitted, experience drunk and experience sober, experience sleeping and experience waking, experience drowsy and experience wide-awake, experience self-conscious and experience self-forgetful, experience intellectual and experience physical, experience religious and experience sceptical, experience anxious and experience care-free, experience anticipatory and experience retrospective, experience happy and experience grieving, experience dominated by emotion and experience under self-restraint, experience in the light and experience in the dark, experience normal and experience abnormal."
1. The Fact of Human Freedom

Of the many facts, we are here concerned with the experience of human freedom. That freedom is given in our experience is explicitly affirmed in many of Whitehead's writings. More than merely acknowledging this fact, his works contain some forceful statements in defense of freedom as one of the fundamental elevating forces of evolutionary development of not only human existence but of all levels of actuality. Let us briefly examine a few representative texts.

Whitehead's affirmation of the reality of human freedom is brought out in his thoughts on what could be called the social sciences—those arts and sciences having to do primarily with the social dimension of human existence. In the early 1920s before the appearance of his full-scale "philosophical" works, Whitehead addresses himself to the problem of education and of the importance of acquiring what the ancients called "wisdom." The aim of education, says Whitehead, should not be limited to acquiring factual knowledge, for in itself such knowledge is barren, if not actually evil. Knowledge becomes important only in its use, that is, in our mastery of it. This mastery is what we mean by "wisdom," and thus the aim of education is to acquire both "knowledge" and "wisdom." Wisdom is the way in which knowledge is held. It concerns the handling of knowledge, its selection for the determination of relevant issues, its employment to add value to our immediate experience. This mastery of knowledge, which is wisdom, is the most intimate freedom obtainable.¹

Though the acquisition of wisdom brings with it a most important kind of freedom, wisdom itself, like knowledge, is acquired through the interplay of freedom of inquiry coupled with discipline:

The only avenue toward wisdom is freedom in the presence of knowledge. But the only avenue toward knowledge is by discipline in the acquirement of ordered fact. Freedom and discipline are the two essentials of education....

Freedom is no less important in the other social spheres. In a speech delivered in 1933 at a meeting commemorating the founding of the Harvard Business School, one of the themes of Whitehead's talk is the social, economic, and political significance of freedom.

It is impossible to understand the social history of our ancestors unless we remember the surging freedom which then existed within the cities, of England, of Flanders, of the Rhine Valley, and of Northern Italy. Under our present industrial system, this type of freedom is being lost. This loss means the fading from human life of values infinitely precious to it....I suggest that one subject of study for our industrial and sociological statesmen should be the preservation of freedom for those who are engaged in mass production and mass distribution which are necessities in our modern civilization. It is a study requiring penetrating insight so as to distinguish between the realities of freedom and its mere show, and between hurtful and fruitful ways of freedom.

On the eve of World War II, on the occasion of Germany's seizure of Austria, speaking again of political freedom Whitehead muses that "the task of democ-

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1AE, p. 47.

racy is to relieve mass misery and yet preserve the freedom of the individual."

The theme of human freedom appears in Whitehead's more formal philosophical writings as well. An indication of the importance Whitehead gives it can be seen in the fact that in Part One of Adventures of Ideas he examines the history of the idea of freedom of the individual, often in the context of the abolition of the institution of slavery, to exemplify those evolutions of ideas that mark the progress of civilizations. Finally, it is very significant that in Process and Reality Whitehead allies his philosophy of organism to the moral experiences of mankind with a forceful and blunt statement.

Further, in the case of those actualities whose immediate experience is most completely open to us, namely, human beings, the final decision of the immediate subject-superject, constituting the ultimate modification of subjective aim, is the foundation of our experience of responsibility, of approbation or of disapprobation, of self-approval or of self-reproach, of freedom of emphasis. This element in experience is too large to be put aside merely as misconstruction. It governs the whole tone of life. It can be illustrated only by striking instances from fact or from fiction. But these instances are only conspicuous illustrations of human experience during each hour and each minute. The ultimate freedom of things, lying beyond all determinations, was whispered by Galileo—E pur si muove—freedom for the inquisitors to think wrongly, for Galileo to think rightly and for the world to move in despite of Galileo and inquisitors.

In these few representative texts spanning some 15 years, something

1Dialogues of Alfred North Whitehead, as recorded by Lucien Price (Boston: Little, Brown and Co., 1955), March 17, 1938, p. 94. (Hereafter referred to as D.) This work is also published as a Mentor paperback; (New York: The New American Library, 1956.)

2PR, pp. 74-75. Underlining of the first two sentences is mine. Also see SNW, pp. 112-21.
of Whitehead's ideas concerning human freedom begins to emerge. First, he is affirming unequivocally both the fact and the importance of freedom for human civilization. Freedom is a necessary condition for the very intelligibility of human experience. Second, Whitehead does not thereby want to deny that freedom is exercised within limitations. A careful examination of the data turns up deterministic as well as indeterministic factors. Third, he thinks it important to account for the fact of freedom philosophically. Fourth, though he rarely offers a definition of the freedom under discussion, it is apparent from these passages that Whitehead is well aware that experience discloses different types of freedom. Consequently in order to better understand what Whitehead is so strongly defending, some preliminary remarks are in order concerning how we think he views their relationship.

2. The Types of Human Freedom

The most fundamental type of human freedom according to Whitehead is what has come to be called the freedom of "self-determination." In the previously quoted passage from Process and Reality Whitehead is affirming this type of freedom in terms of his systematic language. Leaving aside our de-

1 In fact these texts undoubtedly represent a continual theme of Whitehead's mature speculations, for Whitehead has noted that although his writings on philosophy began when he came to America the ideas contained therein "had been generating for the better part of a lifetime." (Pr, June 19, 1945, p. 327.) Also see Pr, p. x.

tailed analysis of the system and its language for subsequent chapters, we merely wish to point out that here Whitehead is asserting that our experience itself presupposes for its very meaningfulness the fact that humans are free, moral agents. As we shall see presently, this would appear to imply a kind of practical and/or theoretical defense of the existence of human freedom. Moreover, their freedom of self-determination is natural in the sense of being possessed by all men simply in virtue of their being men. This natural freedom consists in an activity of self-causation whereby the human being, though in large measure a product of the settled and determining past, is nevertheless itself an originative source of genuine creative novelty.¹ In the case of human beings, self-determination manifests itself in direct and immediate experience as the unique activity of choosing among possible alternative modes of thought and action. Though it is not readily apparent from these texts, as we shall see, moral choice involves an activity directly related to man's unique powers of intellectual abstraction.

The significance, if not the uniqueness, of intellectual activity to man's freedom of self-determination is merely alluded to toward the end of the quote from Process and Reality and is suggested in the passage where Whitehead was seen to speak of "wisdom." Whitehead is calling attention to

¹"The freedom inherent in the universe is constituted by this element of self-causation." (PR, p. 135.) Cf. p. 228. Although in these texts Whitehead is speaking of the freedom of "actual entities" his discussion is meant to ultimately account for "human freedom." See MT, p. 131. Whitehead has acknowledged in conversation that the source of his doctrine of the self-causality of an actual entity is an examination of human experience. See Allison Heartz Johnson, "Whitehead as Teacher and Philosopher," Philosophy and Phenomenological Research, XXIX, No. 3 (March, 1969), p. 353.
the importance of genuine intellectual inquiry, of the freedom to question, to doubt, to wonder, to probe, to comprehend, and finally to attempt to formulate general principles in terms of which human existence can begin to be understood and begin to be lived fully. Generalizing, it appears to us that Whitehead is here referring to man's initial act of freedom which on the level of consciousness consists in our decision to think or not about any alternative, and he is saying that one of the aims of education is to perfect and even give direction to this characteristically human activity. The exercise of free thought is not, then, restricted to mere academic inquiries commonly associated with formal education. On the contrary, such education is possible inasmuch as man is by nature capable of a conceptual grasp of real alternatives of thought and action, and, consequently, is capable of freely determining his present mode of existence in terms of these alternatives. It follows that a basic aim of education, be it formal or informal, ought to be to build upon and to perfect this initial moment in the freedom of self-determination.

To be sure, freedom of self-determination is not limited merely to willing to think or not to think about alternatives. There is a subsequent moment when the person must choose to act or not to act on the possibilities conceptually entertained. Thus self-determination extends to freedom of action as well as freedom of thought. But the point is that freedom of thought is prior to and is a necessary condition of freedom of action and that education, in the general sense of the acquisition of knowledge, is a necessary condition for the exercise of all subsequent acts of human freedom.
properly so called.

The freedom of self-determination is fundamental in the sense that it is natural and as such is presupposed in any subsequent manifestation that freedom may take. Every act of human freedom entails an act of self-determination of choosing among alternative possibilities. In another sense, however, this is not for Whitehead the most important kind of human freedom. For as we have observed, Whitehead speaks of a freedom possessed only by those who have acquired "wisdom" or moral virtue. A higher kind of freedom is exercised by the person who comes to acquire "wisdom," for in him alone the soul freely conforms to the ideals and goals established by intellectual insight. Thus even in the face of the most adverse circumstances a man is at least free to choose and thus himself determine his attitudes as regards his situation; the "wise man" has the additional freedom of determining his attitudes in the light of basic moral insights as far as he can be aware of them. In this sense, the wise or virtuous person always retains inner freedom, be he free man or captive.

There is a freedom lying beyond circumstance, derived from the direct intuition that life can be grounded upon its absorption in what is changeless amid change. This is the freedom at which Plato was groping, the freedom which Stoics and Christians obtained as the gift of Hellenism. It is the freedom of that virtue directly derived from the source of all harmony. For it is conditioned only by its adequacy of understanding. And understanding has this quality that, however it be led up to, it issues in the soul freely conforming its nature to the supremacy of insight. It is the reconciliation of freedom with the compulsion of the truth. In this sense the captive can be free, taking as his own the supreme insight, the indwelling persuasion towards the harmony which is the height of existence. ¹

¹AI, p. 86.
Of course this is not to deny that in a certain sense the captive is not free. The circumstances of captivity are such that they entail the inability to act according to one's own wishes. This sense of circumstantial freedom of self-realization was given its classical statement by David Hume. "Liberty," says Hume, is

a power of acting or not acting according to the determinations of the will; that is, if we choose to remain at rest we may; if we choose to move, we also may. Now this hypothetical liberty is universally allowed to belong to everyone who is not a prisoner and in chains.¹

Now Whitehead is certainly aware of the importance of freedom of self-realization, as his references to the captive and the enslaved indicate; he does not wish to deny that the prisoner is not free to act according to his wishes. Yet in the deeper meaning of the term, even the captive or the slave may retain his inner freedom of self-perfection while forgoing the freedom of self-realization; and he may do so though he also lacks "political freedom."

For he retains the element of self-determination at least as regards his inner states of mind and moral character.

Lastly, Whitehead was seen to speak of "political freedom." The political participation of the free man greatly expands the range of self-determination, for it concerns the individual's capacity to affect the circumstances under which he exists and exercises his choices as a social animal among equals. As a citizen, the individual exercising political freedom participates in making positive laws under which he will be obliged to live; in some measure he is thereby able to alter the structure and institutions of

his society. Because man is a social animal, political freedom also enhances the individual's freedom of self-perfection.

Of the several types of freedom asserted by Whitehead, self-determination is natural, primary, and the source of the others. It is implied in the freedoms of self-perfection, self-realization, and political liberty, and for this reason when Whitehead attempts to give a philosophical elucidation of the nature of human freedom, it is self-determination that he intends to explain. This is also the reason why most of Whitehead's descriptions of the experience of freedom are restricted to this type of activity. In order to better comprehend what Whitehead wished to explain philosophically, let us examine a bit more closely the manner in which this type of freedom is said to be disclosed in our experience.

3. The Experience of Human Freedom

Whitehead claims that the experience of freedom, of responsibility, in short, of the moral quality of human existence is disclosed in a kind of "moral intuition." He says, for example, that it is by a kind of moral intuition that one becomes aware of the goodness of speculation for its own sake and of the importance and ground of freedom of thought. It seems to us that Whitehead also calls attention to moral intuition where he speaks of the decisiveness of intuition in framing our philosophical speculations:

1"There is a strong moral intuition that speculative understanding for its own sake is one of the ultimate elements in a good life. The passionate claim for freedom of thought is based upon it." (FR, p. 38.) Cf. FR, p. 75; NT, p. 49.
In our cosmological construction we are, therefore left with the final opposites, joy and sorrow, good and evil, disjunction and conjunction—that is to say, the many in one—flux and permanence, greatness and triviality, freedom and necessity, God and the World, in this list, the pairs of opposites are in experience with a certain ultimate directness of intuition, except in the case of the final pair.\(^1\) Just as joy and sorrow, flux and permanence, greatness and triviality are given in direct intuition, so also are good and evil, freedom and determination, though now we can speak of moral intuition.\(^2\)

Another indication of the intuitive character of moral experience can be seen by observing how Whitehead relates the moral and aesthetic spheres.\(^3\)

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\(^1\)FR, p. 518. Concluding Lecture Eight of *WT* Whitehead remarks that "In these lectures I have not entered upon systematic metaphysical cosmology. The object of the lectures is to indicate those elements in our experience in terms of which such a cosmology should be constructed. The key notion from which such construction should start is that the energetic activity considered in physics is the emotional intensity entertained in life." (PP. 231-32.)

\(^2\)Although Whitehead closes the chapter on the Ideal Opposites with the comment that the pair "God and the World" are not ultimately given in intuition the way the others are, it is important to recall that in Religion in the Making the appeal to religious experience is fundamentally an appeal to a kind of religious intuition. Though Whitehead is not there appealing to a direct vision of the deity as is claimed by the religious mystics, he maintains that the experience is "intuitive" nevertheless. Furthermore, in his later works, Whitehead does not, we think, abandon the view of Religion in the Making (New York: Meridian Books, Inc., 1960). All of this work is important in this connection, but especially to be noted is Part II, "Religion and Dogma," and esp. section 2, pp. 57-65; also see p. 84. (Hereafter referred to as RM.)

In general, the former is subordinated to the latter. He maintains that the order of nature given in experience is properly understood as an aesthetic order, and that all other orders are species or aspects of aesthetic order. Moreover, since moral experience is a certain aspect of aesthetic feeling, the former will be given in an experience which is fundamentally aesthetic:

The metaphysical doctrine, here expounded, finds the foundations of the world in the aesthetic experience, rather than—as with Kant—in the cognitive and conceptive experience. All order is therefore aesthetic order, and the moral order is merely certain aspects of aesthetic order....


1Whitehead holds that the question of an "order" of nature lies at the basis of the possibility of science. If there is no order there can be no science. "In the first place, there can be no living science unless there is a widespread instinctive conviction in the existence of an Order of Things, and in particular, of an Order of Nature. I have used the word instinctive advisedly. It does not matter what men say in words, so long as their activities are controlled by settled instincts." (SMW, p. 6.) Also see pp. 6-28, 212-25. As with most of the themes of SMW, Whitehead will develop these ideas on "order" in his subsequent works. See, for example, PR, Part 2, Chapters iii-iv, pp. 127-97; MT, pp. 103-16 & 116-71.

The intuitive character of aesthetic and therefore of moral experience is brought out in *Science and the Modern World* where Whitehead rejects the narrow mechanism of 18th century science. "The mechanism of God and the mechanism of matter," he says, "were the monstrous issues of limited metaphysics and clear logical intellect." Rejecting this view he makes his own the feeling expressed by the great poets of the following century. More than any other 19th century poet, Wordsworth was moved by a kind of moral repulsion in regard to the Newtonian synthesis. He was moved by the feeling "that something had been left out, and that what had been left out comprised everything that was most important." More specifically Wordsworth's criticism of science was its "absorption in abstractions." The theme of so many of his poems is that the important things eluded the scientific method. Whitehead feels that it is therefore important to ask what Wordsworth found in nature that failed to receive expression in science. Let us listen to Whitehead's answer:

The literature of the nineteenth century, especially its English poetic literature, is a witness to the discord between the aesthetic intuitions of mankind and the mechanism of science. Shelly brings vividly before us the eluciveness of the eternal objects of sense as they haunt the change which infects underlying organisms. Wordsworth is the poet of nature as being the field of enduring permanence carrying

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1 *SMW*, p. 109.

2 The influence on Whitehead of the great poets such as Wordsworth and Whitman as well as some similarities between Whitehead and the important neo-Confucian philosopher Chu Hsi (1130-1200) are the subject of Mary A. Wyman's work, *The Lure for Feeling*.

3 *SMW*, p. 112.

within themselves a message of tremendous significance. The eternal objects are also there for him.

'The light that never was, on sea or land.'

Both Shelley and Wordsworth emphatically bear witness that nature cannot be divorced from its aesthetic values.¹

In affirming the aesthetic quality of nature given in our everyday lived experience, Whitehead sees the English Romantic poets reacting to the scientism so predominant from about the 17th century. Based on mechanistic, materialistic models, this older scientific realism asserted the supremacy of physical causation to the extent of disjoining it from considerations of final causality. The effect of banning final causation from natural science—and from philosophy—was to empty nature of its aesthetic quality and to reduce all evaluative judgments to subjective projections or at worse to groundless illusions. The consequences of this disjunction became especially apparent where the canons of Newtonian science were extended to the biological and psychological sciences. It was to remove mind from nature by denying that the mind can supply experiences in the order of final causality other than those provided for it by the body and by its prior mental states in the order of efficient causality. In such mechanistic models the whole does not appear as really more than the sum of its parts and is finally accounted for solely in terms of the reality of the parts. The result is that no adequate explanation is offered for the fact that within at least some types of wholes the parts evidence characteristics that are different from the properties

¹Ibid., p. 127.
manifest by these parts when in isolation. The other side of the same dif-

culty is that a sufficient explanation is lacking for the fact that the

parts appear to function for the good of the whole.

On another level, the effect of this disjunction was, as Whitehead

suggests, to render moral responsibility unintelligible, if not non-existent.

Individual moral responsibility is impossible unless both determinism and free

will have some relevance, "unhampered by the difficulties introduced by ma-

terialistic mechanism, or by the compromise of vitalism," which is, says

Whitehead, in its usual forms but a version of mechanism. Appealing to the

combined insights of the great 19th century poets, Whitehead concurs that

individual moral responsibility can be retained along with the latest findings

of science if, on the contrary, the concrete enduring entities are regarded

as "organisms." On such a model

mental experiences are derivative from the actions of the body, including

of course its internal behavior. Accordingly, the sole function of the

mind is to have at least some of its experiences settled for it, and to

add such others as may be open to it independently of the body's motions,

internal and external. 1

Stated briefly, the function of mentality in the organism is to be causally
determined by the parts but also to supply a plan of the whole, i.e. a goal
or end, which in some measure itself determines the very characters of the
various subordinate parts which enter into it. The doctrine of organism im-
plied by the poets and espoused by Whitehead would thus reintroduce mental
activity within "material nature" as the source of novelty in the order of
final causality. It would contain an intelligible doctrine of self-causation

1SMW, p. 113.
which would do justice to the more abstract data of the sciences and to the concrete data of human freedom given in the lived, aesthetic-filled experience of mankind.

When we relate Whitehead's rather general comments concerning the intuitive character of our moral feelings and his remarks on the various types of freedom, notably the basic freedom of self-determination, we can ask how, more specifically, is freedom disclosed in our moral experience? It is somewhat surprising to realize that Whitehead devotes rather little attention to this question despite his repeated affirmations of the reality of freedom and of the genuineness of our feelings of freedom. There is not to be found in his writings anything like a complete phenomenological analysis of this experience. However, what Whitehead does say is very significant and suffices to indicate in a general way what he means to defend philosophically.

Whitehead claims that we immediately and directly feel ourselves as an (organic) unity of body and mind (or soul). This feeling involves at least the following characteristics. First, it is an experience of the derivation of emotion from both our bodies and our own states of mind directly preceeding the immediate present of our conscious experience. In other words, our present experiential moment is in part constituted by our "feelings" of the immanence of the past determining the present. Because the present moment is experienced as growing out of the past we have a basis for personal unity, for being one person—body and soul—through many stages of existence within the world. ¹

¹Whitehead, pp. 218-28; 155-61.
Second, though a true unity, our identity with our prior states of consciousness and with our bodies is not numerical, that is absolute. We feel ourselves growing out of the past and into a genuinely novel occasion of experience. This experience entails an element of creative self-determination exercised within the limitations determined by our past moments of experience—and limited by the novel possibilities realizable in the present and future.

Third, this entails that we directly experience the causal efficacy of the past determining the present, but not absolutely. For in addition, we have a direct experience of ourselves as "causa-sui" determining in the order of final causality, that is teleologically.¹ We are conscious of a purely ideal aim entertained in such a manner as to be directive of the process of self-creation. The choice of this aim involves both the exclusion of real alternative possibilities—potentialities—and the inclusion of "that definite factor of novelty which constitutes the selected way of entertaining those data in the process of unification."²

Fourth, at least in its higher manifestations this experience involves a direct conscious awareness of conceptually entertained aims. Bringing these points together Whitehead says:

I find myself as essentially a unity of emotions, enjoyments, hopes, fears, regrets, valuations, of alternatives, decisions—all of them

¹"In fact we are directly conscious of our purpose as directive of our actions." (Ibid., p. 213.) Also see PR, p. 74, SMW, pp. 112-21. Also see Johnson, "Whitehead as Teacher," p. 353.

²MT, p. 108.
subjective reactions to the environment as active in my nature. My unity—which is Descartes' 'I am'—is my process of shaping this welter of material into a consistent pattern of feelings. The individual enjoyment is what I am in my role of a natural activity, as I shape the activities of the environment into a new creation, which is myself at this moment; and yet, as being myself, it is a continuation of the antecedent world. If we stress the role of my immediate pattern of active enjoyment, this process is causation. If we stress the role of my immediate pattern of active enjoyment, this process is self-creation. If we stress the role of conceptual anticipation of the future whose existence is a necessity in the nature of the present, this process is the teleological aim at some ideal in the future. This aim, however, is not really beyond the present process. For the aim at the future is an enjoyment in the present. It thus effectively conditions the immediate self-creation of the new creature.¹

Fifth, the emergence of conceptual activity evidencing the greater powers of mentality in human nature is the source of the unique character of man's freedom of self-determination as it manifests itself in the act of free choice. Unlike the animals who merely enjoy structure, man can "understand structure," for he can abstract the principles in the facts and can imagine alternative possibilities.² Whereas animals are consciously aware of and are therefore able to "choose" between this or that particular thing, human intelligence is capable of conceiving of types of things in abstraction from their concrete exemplification, and therefore man is able to exercise freedom of choice properly so called.³

These are the essential characteristics of human freedom of self-determination disclosed within our immediate lived experience that Whitehead

wishes to explain philosophically. It is of the utmost importance to understand that Whitehead accepts this experience as an irreducible starting point that philosophical theory must elucidate. That is to say, the ultimate appeal here is common, even naive, experience. Thus we see that in a manner reminiscent of William James, whom he greatly admired and whose analysis corroborated his own doctrine, Whitehead's appeal to naive experience is a demand that our moral intuitions, including our feelings of freedom, should find their expression within philosophical theory, that they should be explained and not explained away. We can now appreciate why Whitehead appeals to the writings of the poets. It is precisely in their works—and in the aesthetic experience in general—that we find expressed in an especially vivid manner the ultimate concrete experience of mankind. As opposed to the abstract and limited nature of scientific concepts, the appeal to poetry is consequently the demand to be faithful to all the facts. As Whitehead puts it, "I hold that the ultimate appeal is to naive experience and that is why I lay such stress on the evidence of poetry."

Though we are not here concerned with the precise relationship between poetry and philosophy, it is apparent that for Whitehead both are indispensible aspects in civilization's attempt to express its most fundamental insights. If the appeal to poetry is an appeal to be faithful to immediate concrete experiences and if philosophy, especially Speculative Philosophy, is

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\(^{1}\text{SNF}, \text{pp. 129-30. The intuitive experiences are not limited to poetic expressions, however. In AI, pp. 347-48, for example, Whitehead appeals to the artistic experience, and to the even more basic aesthetic experience which lies at the basis of artistic creations and conscious awareness.}^{\text{\textendash}}}
the appeal to make ultimate sense of experience by uncovering the intelligible foundations of the facts, then poetry and philosophy are intimately related. Each governs and supplements the other.

Philosophy is akin to poetry, and both of them seek to express that ultimate good sense which we term civilization. In each case there is reference to form beyond the direct meanings of words. Poetry allies itself to metre, philosophy to mathematic pattern.¹

Speaking of the origins of modern science in terms of the relationship between facts and reason, Whitehead comments:

Poor belated medievalists! When they used reason they were not even intelligible to the ruling powers of their epoch. It will take centuries before stubborn facts are reduced by reason, and meanwhile the pendulum swings slowly and heavily to the extreme of the historical method.²

We have here a concrete example of what Whitehead takes to be an important aspect of the relationship existing between fact and reason. The task of science and especially Speculative Philosophy is to reduce the facts to their intelligible foundation. Their task is the attempt to make ultimate sense of the data—all the data. Nevertheless, though aiming at complete reducibility, something less is always obtained, for a fact is just that, namely a fact.

Now a fact is a kind of starting point—Aristotle would call it a principle (ἀρχή). In an important sense there is no going beyond facts: while we may attempt to explain them, there is no explaining them away. Among other reasons, Plato rejects Parmenides and Heraclitus (or at

¹NT, pp. 237-38. Also see D, November 11, 1947, pp. 368-69.

²SNW, p. 12. Underlining is mine.
least Cratylus) because they explain away rather than explain the objects of sense experience; from his point of view Aristotle rejects Plato for the same reason; similarly the empiricists reject the rationalists and vice versa. This has been the history of philosophical speculation. In each instance it appears to be a case of explaining something but explaining away something else. But as Whitehead says, "Philosophy destroys its usefulness when it indulges in brilliant feats of explaining away."¹

Whitehead would therefore reject those recent scientific and philosophical theories that deny our experience of freedom as illusory. As noted by John Hospers, one of the strongest current arguments of this kind is the psychological doctrine of unconscious motivation. In its more extreme form this theory maintains that an individual's conscious impulses and conscious actions including, of course, his feelings of free choice, are really completely determined by motives operative below the level of conscious life; they are wholly determined by motives of which he knows nothing. The upshot of this theory is that the experience of freedom—of exercising free choice, of consequent feelings of responsibility, of self-approbation and self-reproach, and so forth—are explained away as totally illusory.² Whitehead

¹ FR, p. 25. See FR, p. 9: "It has been remarked that a system of philosophy is never refuted; it is only abandoned. The reason is that logical contradictions, except as temporary slips of the mind—plentiful, though temporary—are the most gratuitous of errors; and usually they are trivial. Thus, after criticism, systems do not exhibit mere illogicalities. They suffer from inadequacy and incoherence. Failure to include some obvious elements of experience in the scope of the system is met by boldly denying the facts." Also see pp. 196-97, FR, p. 86.

² "Free Will and Psychoanalysis," in The Problem of Free Will, ed.
is acutely aware of this dangerous tendency toward rationalism inherent in scientific and philosophical explanations and it appears that it is for this reason that he speaks in *Science and the Modern World* of irreducible stubborn facts. Certain facts, such as those disclosed in our moral experience and including the activity of self-determination, are absolute starting points given within the very structure of our immediate lived experience. In the end, these facts remain. They cannot be *reduced* by removing them. They are *stubborn* and simply refuse to go away.

Consciousness and intelligence are late arrivals on the scene. For Whitehead, aesthetic intuitions, generically speaking, are prior to consciousness; consciousness and all it may involve in the order of intellection and rationality come later and presuppose the aesthetic experience. This is also true for our moral experiences including our experiences of freedom. Though supplementing each other, the latter explain the former but should not explain them away. Accordingly, Whitehead observes that "we have either to explain the diverse senses in which freedom and necessity can coexist, or we have to explain away one or other of the most obvious presuppositions of our daily thoughts."  

What is the meaning of Whitehead's assertion that freedom and necessity are "the most obvious presuppositions of our daily thoughts" or that the


1 *MT*, p. 10.
feelings of freedom, responsibility, approbation and disapprobation, and so forth are "too large to be put aside merely as misconstruction" inasmuch as they "govern the whole tone of life"? We understand Whitehead to mean that our ordinary lived experience, as well as our scientific and philosophical pronouncements, all presuppose for their very intelligibility the fact that human beings exercise genuine though limited freedom of self determination. This assertion would appear to entail one of the following two positions.

Like William James, Whitehead may mean that we cannot scientifically "prove" the truth or falsity of moderate freedom any more than we can "prove" that of complete determinism. Instead of a proof, we are left with the necessity of a choice. Since we must choose one or the other alternative, why not choose freedom? As James says,

Our first act of freedom, if we are free, ought in all inward propriety to be to affirm that we are free. This should exclude, it seems to me, from the free-will side of the question all hope of a coercive demonstration— a demonstration which I, for one, am perfectly content to go without. ¹

On this rendition, to believe in strict determinism is unwarranted because it is indemonstrable and because it implies a pessimism and despair that would make a shambles of our moral lives and thereby render the greater part of our experience meaningless. Rather than giving a proof of freedom or a disproof of determinism, Whitehead would be interpreted as being satisfied to develop a philosophical explanation that elucidates the facts of freedom given in our moral experience and also better, or at least equally well, accounts for the

data that appear to require the determinist's thesis.

On the other hand, it might also be argued that Whitehead means exactly what he says, namely, that a consequence of denying human freedom would be to render our entire experience utterly meaningless—and therefore render the determinist's position unintelligible. On this stronger interpretation, Whitehead's assertions would imply the kind of position maintained by such diverse thinkers as Brand Blanshard, Alburey Castell, Paul Tillich, and others, all of whom attempt to defend the existence of human freedom by demonstrating the untenable theoretical consequences entailed in its denial. As Tillich succinctly puts it, "The determinist does not see that the very affirmation of determinism as true presupposes the freedom of decision between true and false...." Peter Bertocci makes the same point in greater detail:

The only one who can know what judgment is true is a person who can analyze and think freely about the data, a person who is able to resist any conclusion which is not based on the evidence before him. The person who cannot will to think and keep thinking about the evidence and different interpretations of it will have conclusions; but his conclusions are not necessarily from the evidence.

If what we have said is true, the person who holds that scientific investigation presupposes that all events are determined is in an embarrassing position. For if there is no freedom of will, there is no meaning to scientific truth. Hold that the mind, in its reasoning about events, is just as determined as the events are, and there is no basis for holding that the scientist's conclusion is truer than that of the layman. Indeed, no one is left to know which conclusion is less partial than the other, for everyone's conclusion proceeds not from relatively free or detached observation of the facts but from the nexus of events in his brain. But why is one flurry of electrical events truer than another, unless we can have some basis for believing that subjective

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desires and prejudices, for example, can be willfully resisted in accordance with an ideal of proper investigation.1

In either case, whether he would have favored the type of argument offered by James or Bertocci, it is at least certain that Whitehead regards the experience of freedom as genuine and irrefutable, and like them he intends to offer an explanation of its nature.

Thus far we have seen Whitehead writing that our feeling of limited freedom is a fact given in our direct lived experience. It is given in a moral intuition that precedes the clear conceptual analysis of scientific and philosophical theory. The poets also attest to the primacy of this experience and therefore especially in their works can be found an important reaffirmation of the reality of immediate experience that is the basis of our feelings of freedom. Furthermore, the radical irreducibility of this experience is such that its very existence is presupposed in the intelligibility of at least


a large part, if not all, of human existence.

To acknowledge the fact of human freedom is not, however, to adequately understand its nature. Precisely because it is initially experienced at the level of aesthetic feelings, it is essential for man to seek a conceptual understanding of this experience. At this point there arises the danger that as so often in the past theory will render experience illusory. The problem as Whitehead envisions it is therefore to give a philosophical explanation of the whole of reality that would not explain away any of its parts. More specifically, his aim includes an attempt to present an ultimate elucidation of the basis of human freedom.

B. Whitehead's Aim: A Philosophical Elucidation of the Basis of Human Freedom

Akin to poetry, philosophy is not merely poetry. But to say this is not to say what philosophy is. To say that it must not explain away the facts is not to say what it does. What is involved in Whitehead's conception of Speculative Philosophy? While poetry expresses itself in meter, Speculative Philosophy endeavors to frame a coherent, logical, necessary system of general ideas. In order to understand what this means, we will begin by contrasting philosophy to science.

1. The Necessity of Science and Philosophy

But before we begin this contrast, perhaps a prior question should be answered. Why do we have science? Why do we have philosophy? If facts are stubborn, if they reject being explained away, why do we have, or rather, why
do we need anything beyond the given facts of experience? A partial answer had been noted earlier where it was mentioned that facts are neither all of a kind nor are they immediately compatible. There are contrasting facts. A more nearly complete answer is given by Whitehead when he objects that there are no mere brute matters of fact, and that modern science as it has been construed is, in Whitehead's view, "an abstraction." On this point, Whitehead sees himself in direct opposition to the kind of thought exemplified by Francis Bacon.

Bacon's writings stand as a kind of culminating expression of an objection dating from about the sixteenth century which in effect condemns philosophic speculation as a kind of useless and even dangerous adventure. Science, the argument runs, should limit itself to detailed observation and description of the matters of fact, and to the eliciting of the "laws of nature" which will possess a generality "strictly limited to the systematization of these described details."¹

For Bacon there can be no greater generality than this, and therefore he is quick to reject the traditional philosophers and scientists, notably the Aristotelians, who, blinded by the Stagarite's Organon, continue to speak of non-experiential explanatory principles such as "principles of being," "act and power," "passive matter," and especially "final causality," as well as other non-experiential explanatory conceptions.²

¹PR, p. 21.

²For an example of Bacon's preference for the pre-Socratic philosophers see his Novum Organum, I, 63, in The Philosophical Works of Francis
Formal and final causality are therefore to be barred from physics but not from metaphysics—where they are at least mentioned—nor from considerations involving human acts. Bacon's dualism has two sides. Ontologically it appears as the radical separation of man from nature. The laws held operative for nature do not appear to be applicable to man's activities. Thus man is free and his activities are teleological while nature is neither free nor tends to established ends or goals. It appears epistemologically as the radical separation of the sciences of physics and metaphysics.

Such is the spirit of Bacon's philosophy. It is primarily empirical in origin and generality. Moreover, its conclusions do not escape the narrow empiricism of its origin. But why should finality and freedom be predicated of man but not of nature, as if man was somehow outside of nature? How can efficient, formal, and final causality be kept separate, even in the physical sciences? To Whitehead such dualisms are clearly instances of philosophical incoherence.\(^1\) Unlike Bacon, Whitehead maintains that one of the tasks of a sound metaphysics is to "exhibit final and efficient causes in their proper relation to each other,"\(^2\) and thereby to establish the very foun-

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\(^1\)Whitehead's concern that philosophical speculation be coherent can be seen in FR, pp. 5, 9-10.

\(^2\)FR, p. 129; cf. AI, p. 251; FR, pp. 10-18.
dations for the physical sciences. Here, then, Whitehead's position is very instructive. Rejecting some of the Aristotelian tenets noted by Bacon, he does not reject many others, and this for very important reasons. In some ways Whitehead is closer to the ancient Aristotle than the modern Bacon.

Most important is Whitehead's rejection of the Aristotelian logic. Naively trusting the facility of human language to mirror reality, Aristotle followed too closely the subject-predicate grammatical form in the construction of his logic and also—if not therefore—in the construction of his philosophical system. The consequences have been most unfortunate, for Occiden-


2. Whitehead's criticism of Aristotelian logic can be seen in the following passages: PR, pp. 45, 80-81, 208-09; AI, pp. 167-73 (esp. 169-70), 196; SWM, p. 244; The Principles of Relativity (Cambridge: The Cambridge University Press, 1942), pp. 13-14. (Hereafter referred to as PREL.)
tal thought since Aristotle has been primarily substance orientated. This has meant speaking of accidents and of substratums, and introducing the faculty-psychology. In both instances the result has been to send science


In the history of science this has had, says Whitehead, unfortunate consequences: "Aristotle asked the fundamental question, What do we mean by 'substance'? Here the reaction between his philosophy and his logic worked very unfortunately. In his logic, the fundamental type of affirmative proposition is the attribution of a predicate to a subject. Accordingly, amid the many current uses of the term 'substance' which he analyses, he emphasises its meaning as 'the ultimate substratum which is no longer predicated of anything else.' The unquestioned acceptance of the Aristotelian logic has led to an ingrained tendency to postulate a substratum for whatever is disclosed in sense-awareness, namely, to look below what we are aware of for the substance in the sense of the 'concrete thing.' This is the origin of the modern scientific concept of matter and of ether, namely they are the outcome of this insistent habit of postulation.

Personally, I think that predication is a muddled notion confusing many different relations under a convenient common form of speech." The Concept of Nature (Cambridge: Cambridge University Press, 1964; this paper cover edition has the identical pagination of the 1920 edition), pp. 18-19 (see all of pp. 16-25). (Hereafter referred to as CN.)

To Whitehead, the consequences have been no less unfortunate in philosophy. He reads the history of speculative thought since Aristotle as so many variations on the substance theme, as can be seen in the writings of the medievals and moderns. Throughout his more philosophical writings Whitehead contrasts his philosophy of organism with the substance philosophies of Aristotle, Descartes, Spinoza, and Leibniz; with the statements of the empiricists Locke, Berkeley, and Hume; and finally with Kant, who in a significant way brought this discussion to a head—but at the price of inverting the real order with the order of knowing, and the order of knowing with the order of appetition. See, for example, MT, pp. 193-94; PR, pp. viii, 10, 45, esp. 119-23 and 208-12, 319; AT, pp. 169-73, 355-56, 360-61.

PR, p. viii.
and philosophy on a wrong turn. On the other hand, against Bacon Whitehead affirms the importance and reality of what are for him in fact "principles of being"; of the reality of real "potentiality," which includes Whitehead's "eternal object"; of "final causes." Finally, in what some ways summarizes Whitehead's attitude, he affirms the necessity of going beyond generalities limited to mere descriptions of the facts.

Now as Whitehead observes, Bacon's generalities are limited to the systematization of described details. What, if anything, is lacking in such a conception of science and philosophy? Whitehead clearly sees that according to this view general interpretations—interpretations and laws not limited to explaining the specific data of any one science—have no bearing on procedures of the limited sciences. The result is that "any system of general interpretation, be it true or false, remains intrinsically barren." The whole of Bacon's procedure rests upon a suppressed assumption, namely, that there are self-contained brute matters of fact. However this is precisely

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1 See his discussion of physical and conceptual poles, subjective form and aim, creativity, eternal objects, God, and the real internal relationship of past actual entities in the concrescence of actual entities. The whole of Process and Reality and much of Science and the Modern World and Adventures of Ideas are devoted to working out the relationships maintaining between these "principles of being." To be sure, God and other actual entities are beings in themselves, they are actual entities; nevertheless, as we shall see they are principles precisely inasmuch as they contribute to the being of the presently existing actual entities. Moreover, like Aristotle's matter and form, some of these can exist only within and through actual entities (according to the "Ontological Principle"). PR, esp. pp. 27-28, 18th "Category of Explanation," pp. 26-27, 64-69; cf. MT, pp. 92ff.

2 PR, p. 129. Whitehead's polemic in favor of final causality and against Bacon and those extremists of radical empiricism the contemporary positivists, can be seen in his brilliant short work The Function of Reason. Besides PR, prolong discussions on the limitations of positivism appear in AI, pp. 45-51 and 157-68.
what Whitehead rejects. On the contrary,

there are no brute, self-contained matters of fact, capable of being understood apart from interpretation as an element in a system. Whenever we attempt to express the matter of immediate experience, we find that its understanding leads us beyond itself, to its contemporaries, to its past, to its future, and to the universals in terms of which its definiteness is exhibited. But such universals, by their very character of universality, embody the potentiality of other facts with variant types of definiteness. Thus the understanding of the immediate brute fact requires its metaphysical interpretation as an item in a world with some systematic relation to it. When thought comes upon the scene, it finds the interpretations as matters of practice.¹

Several ideas are directing the writing of this passage. In the first place, Whitehead is rejecting the existence of self-enclosed actualities with its corelative doctrine of "external relations." He is denying the reality of all previous forms of atomism implicitly or explicitly based on substance metaphysics: be they the cosmological kind of the ancient Atomists or of the moderns such as Bacon and Newton; or their epistemological counterpart Descartes and the empiricists Locke, Berkeley, and especially Hume.² Actualities, what Whitehead calls "actual entities," are none of them self-contained. Not even God needs nothing but himself in order to exist. Arguing on the basis of our immediate experience, Whitehead will say that actual entities are internally related. There are no self-enclosed facts because there are no self-enclosed actualities. Therefore any body of knowledge basing itself on

¹FR, pp. 21-22; cf. pp. 7-8. FR, pp. 54-58.

²AI, Chapter viii, pp. 152-78. Though there will be many similarities between the two, Whitehead's own brand of "atomism" will differ in some important respects from that of the "monodology" of Leibniz. See Ivor Leclerc, "Kant's Second Antinomy, Leibniz and Whitehead," The Review of Metaphysics, XX, No. 1 (September, 1966), pp. 25-41.
the denial of real internal relations is bound to be incomplete, if not false. Secondly, Whitehead is saying that every assertion concerning the nature of any part of reality implicitly contains an attitude concerning the whole of reality. Or, at least every partial exposition leads beyond itself. Thirdly, like the sciences, philosophy will be seen to be limited by the tools it uses. Philosophy's tool is language, and this is why Whitehead deems it necessary to fashion new tools to construct his new philosophy of organism. In fine, there is a need for both science and for something that has traditionally gone by the name philosophy. Science, because there must be general methods and means of organizing and relating the many data given in the particular classes of experience; philosophy, because sciences are by their very method abstractive. Proceeding by abstraction, the particular sciences begin by eliminating certain classes of data as being irrelevant to the sciences. But if the world is really related in some kind of meaningful "whole," that is, if reality is really one, then it is necessary to recognize the limitations of the sciences but also to overcome them by constructing a philosophy. What, then, is philosophy and what are its dimensions? What is its role? What is the extent of its generalities?

2. The Distinction Between Science and Philosophy

It is beyond the scope of this work to present a complete answer to these questions—especially since this would involve a detailed study of

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1PR, pp. 16-20, 12.
the historical development of Whitehead's thought. 1 None the less, a summary observation is in order, for understanding Whitehead's conception of Speculative Philosophy and his critique of the abstract cosmology of modern science will enable us to better grasp his doctrine of human freedom. Let us begin with his distinction between science and philosophy.

In the late works of his middle period Whitehead had begun to see clearly the distinction between science, philosophy, and metaphysics. The aim of both An Enquiry Concerning the Principles of Natural Knowledge and The Concept of Nature, published in 1919 and 1920 respectively, was twofold: first, to formulate the meaning of scientific exposition in the light of contemporary scientific findings; second, to show that these sciences, and indeed all science, are in turn dependent on philosophical conceptions.

A science is an organized, that is, unified, body of knowledge whose subject matter is restricted to some particular body of data, that is facts. For example the starting point of the science of nature is nature taken as

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that which we observe through the senses. As the study of nature, science makes use of concepts like "matter," "space," "time," "motion," and "causality" to name but a few. The philosophy of the sciences would relate these ideas to the concepts employed in the other particular sciences—such as "electron," "atom," "molecule" in physics; "cell," "organism," "life," in the study of biology; the "ego," "consciousness," of psychology—with the aim of discovering unifying conceptions, i.e., those ideas which are common to these particular studies precisely because they implicitly underlie them all.

At this time, Whitehead also maintained that science and the philosophy of science do not exhaust the domain of knowledge, and therefore for all their value they leave untouched many other areas of experience and other fields of knowledge. In short, Whitehead is aware that there is such a thing as metaphysics, but he is determined not to give a metaphysical exposition.

Furthermore, when he wrote The Concept of Nature Whitehead seemed to even have disparged the intrusion of metaphysics into the philosophy of science, for he says:

The immediate thesis for discussion is that any metaphysical interpretation is an illegitimate importation into the philosophy of natural science. By a metaphysical interpretation I mean any discussion of the how (beyond nature) and of the why (beyond nature) of thought and sense awareness.

The recourse to metaphysics is like throwing a match into a powder magazine. It blows up the whole arena. This is exactly what scientific philosophers do when they are driven into a corner and convinced of incoherence. They at once drag in the mind and talk of entities in the mind or out of the mind as the case may be. For natural philosophy everything perceived is in nature....It is for natural philosophy to analyze how these various elements of nature are connected.

1Ch., p. 3.  
2Ibid., p. 2. Also see p. 46.  
3Ibid., p. 5.  
4Ibid., pp. 28-29.
Nevertheless, four years later, the year before the publication of *Science and the Modern World*, Whitehead penned the "Preface" to the Second Edition of the *Enquiry* in which he announces his intention to do what he earlier thought should not be done: he intends to write a metaphysics:

Since the publication of the first edition of this book in 1919, the various topics contained in it have been also considered by me in *The Concept of Nature* (Camb. Univ. Press, 1920) and in *The Principle of Relativity* (Camb. Univ. Press, 1922). I hope in the immediate future to embody in the standpoint of these volumes in a more complete metaphysical study.¹

With the writing of *Science and the Modern World*, or with the preface to the second edition of the *Enquiry*, Whitehead begins his third intellectual period. He had been content to do science and the philosophy of science. Now he turns to philosophical speculation proper, and specifically to metaphysics.

The philosophical tenor of *Science and the Modern World* is stated in the "Preface" where it is announced that "in one of its functions," philosophy "is the critic of cosmologies."² Its function is to harmonise, re-fashion, and justify divergent intuitions as to the nature of things. It has to insist on the scrutiny of the ultimate ideas, and on the retention of the whole evidence in shaping our cosmological scheme. Its business is to render explicit, and—so far as may be—efficient, a process which otherwise is unconsciously performed without rational tests.³

It seems clear that these divergent intuitions refer to what were called the "irreducible stubborn facts" (in the previous section of this chapter). It includes the poetic, religious, moral, in short all the aes-

²*SMW*, p. vii.
thetic intuitions of mankind, as well as the data of ordinary sense experience and of the various sciences and philosophies of science. Philosophy must consider and harmonize, even refashion, all the facts. It leaves nothing untouched: "It retains the whole evidences." Inasmuch as these data are either explicitly or implicitly embodied in ideas of ultimate generality and often function within a particular cosmological scheme, philosophy's business, as Whitehead says, is to make these ideas explicit where necessary and to be the critic of cosmologies. Summarizing his own view of the philosopher's task he says:

Philosophers are rationalists. They are seeking to go behind stubborn and irreducible facts: They wish to explain in the light of universal principles the mutual reference between the various details entering into the flux of things. Also, they seek such principles as will eliminate mere arbitrariness; so that, whatever portion of fact is assumed or given, the existence of the remainder of things shall satisfy some demand of rationality. They demand meaning.¹

To state this a bit differently, science and the philosophy of science do not exhaust the domain of knowledge. Therefore for all their value they leave untouched many other areas of experience and other fields of knowledge and to that extent proceed by way of abstractions. "But science makes the abstraction, and is content to understand the complete fact in respect to only some of its essential aspects .... A philosophic system ultimately metaphysical should present an elucidation of concrete fact from which the sciences abstract."² It is when the scientist—or the philosopher, for that matter—mistakes his abstractions (parts) for the concrete reality (the whole) that

¹Ibid., p. 142. Also see AI, pp. 132-33, 147-49, 161-78, 180-81.
²AI, p. 186.
he is guilty of what Whitehead calls "The Fallacy of Misplaced Concreteness."\(^1\)

Since knowledge implicitly or explicitly assumes ideas of more or less generality, and since the human understanding inevitably attempts to formulate its insights in terms of conceptions of greater and greater generality, it follows that the attempt to articulate a scheme of the most general ideas applicable to all levels of experience is not merely desirable; it is absolutely necessary. The articulation of this scheme is precisely what Whitehead attempts with the writing of his major metaphysical work *Process and Reality*.

That he is doing metaphysics there is no doubt. In *Process and Reality* Whitehead again speaks to the question of the general difference between science and philosophy. He contrasts these disciplines according to their degree of generality:

The field of a special science is confined to one genus of facts, in the sense that no statements are made respecting facts which lie outside that genus.

. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

The study of philosophy is a voyage towards the larger generalities.\(^2\)

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\(^1\) *SM", pp. 74-82, 85-86; *PR*, pp. 11, 143.

\(^2\) *PR*, p. 14. He continues: "For this reason in the infancy of science, when the main stress lay in the discovery of the most general ideas usefully applicable to the subject-matter in question, philosophy was not sharply distinguished from science. To this day, a new science with any substantial novelty in its notions is considered to be in some way peculiarly philosophical. In their later stages, apart from occasional disturbances, most sciences accept without question the general notions in terms of which they develop. The main stress is laid on the adjustment and direct verification of more special statements. In such periods scientists repudiate philosophy; Newton, justly satisfied with his physical principles, disclaimed metaphysics." (Pp. 14-15.)
A statement of the largest generalities in terms of which all of reality is described is what Whitehead calls "Metaphysics": "Metaphysics is nothing but the description of the generalities which apply to all the details of practice."¹ It is just such a metaphysical description that Whitehead attempts in *Process and Reality*.

In the "Preface" Whitehead states what is a key to understanding the underlying direction and purpose of this work. Speaking of the divisions of the work he says that

> In the first part, the method is explained, and the scheme of ideas, in terms of which the cosmology is to be framed, is stated summarily. In the second part an endeavor is made to exhibit this scheme as adequate for the interpretation of the ideas and problems which form the complex texture of civilized thought.²

He envisions his task as (1) formulating a scheme of ideas and (2) as going on to interpret the whole of reality in terms of this general scheme. He calls (1) "The Categorial Scheme" and refers to (2) as it is presented in *Process and Reality* variously as the "cosmology" or the "Cosmological Scheme." It seems to follow that Whitehead proceeds to identify "metaphysics" primarily with the elucidation of (1) and Speculative Philosophy as the combination of (1) and (2). "Speculative Philosophy is the endeavor to frame a coherent, logical, necessary system of general ideas in terms of which every element of our experience can be interpreted."³ The absolute generality of such a scheme of ideas is explicitly stated where Whitehead explains the meanings of

¹Ibid., p. 19.  
²PR, p. v.  
³Ibid., p. 4; cf. AI, p. 285.
"interpretation" and then "adequacy":

By this notion of 'interpretation' I mean that everything of which we are conscious, as enjoyed, perceived, willed, or thought, shall have the character of a particular instance of the general scheme. Thus the philosophical scheme should be coherent, logical, and in respect to its interpretation 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.¹

Now if Speculative Philosophy endeavors to frame the system in terms of which all our experience is interpreted, there can be no Speculative Philosophy apart from that adequate interpretation. For the reality of these Categorical Ideas is to be exemplified in this experience. Nor can experience ever fail to exemplify the principles represented by these ideas, for Whitehead makes it very clear that "The metaphysical first principles can never fail of exemplification. We can never catch the actual world taking a holiday from their sway."² Thus Speculative Philosophy must account for all the facts by not explaining away any one of them.

But if it is to explain all the facts, Speculative Philosophy cannot hope to begin with all the facts, yet begin it must. In the concrete, the metaphysician must begin with some limited body of data, and from these with the aid of "free imagination" discover therein those general principles which are exemplified by the data and which, hopefully, also exemplify all other data by virtue of the ideas' very generality and the "trueness" of the imaginative insight. This is to state generally what Whitehead conveys very poetically by his image of the flight of an airplane:

¹PR, p. 4; cf. AL, p. 285. ²PR, p. 7.
The true method of discovery is like the flight of an aeroplane. It starts from the ground of particular observation; it makes a flight in the thin air of imaginative generalization; and it again lands for renewed observation rendered acute by rational interpretation.¹

Precisely because he must begin with a limited body of data and because he is seeking principles of the greatest generality—which means principles applicable to all the data—the metaphysician must introduce the play of "free imagination"; and therefore it is always possible that his insights either do not express ideas which explain the original data, or do not extend to all the other data.² In either case it is necessary to return to the stubborn and irreducible facts of the world taken in their original experience. It is in terms of explaining these that the Cosmological Scheme receives its ultimate justification and the Categorical Ideas their verification. It is this returning to the facts that Whitehead represents as the return of the airplane to earth.

3. The Place of Freedom Within the Philosophical System

William Christian has perceptively called attention to an implicit

¹ PR, p. 7; cf. AI, pp. 286-87, 177-78.

² "The success of the imaginative experiment is always to be tested by the applicability of its results beyond the restricted locus from which it originated. In default of such extended application, a generalization started from physics, for example, remains merely an alternative expression of notions applicable to physics. The partially successful philosophical generalization will, if derived from physics, find applications in fields of experience beyond physics. It will enlighten observation in those remote fields, so that general principles can be discerned as in process of illustration, which in the absence of the imaginative generalization are obscured by their persistent exemplification." (PR, p. 8.)
distinction operative in the philosophical writings of Whitehead. We must
learn to distinguish, says Christian, between Whitehead's three sorts of dis-
course:

In some passages Whitehead is evoking and describing the concrete ex-
perience he takes as his basic data. This we might call presystematic
language. In others he is constructing and developing the concepts which
compose his categorial scheme. This we might call systematic language.
Elsewhere he uses these systematic terms to interpret sense experience,
the order of nature, art, morality, or religion. Here he is applying his
scheme, and we might call this postsystematic language.¹

Summarizing the preceding pages and applying Christian's terminology,
we can say that human freedom is first given as a kind of stubborn and irre-
ducible fact in a kind of moral intuition. Whitehead uses presystematic
language to describe this facet of human experience. Secondly, in the light
of this and other facts he attempts to derive his "Categorial Scheme." Here
Whitehead is working out his systematic language—that tool constructed to
enable him to express those insights grasped within the experience of the
original fact. Finally, returning to these same facts, but also going to all
the others in their turn, he attempts to explain them in terms of the intel-
ligible principles formulated in the systematic language. This is the domain
of postsystematic language. In terms of human freedom, it is at this point
that Whitehead is presenting the philosophy of organism's analysis of the fact
of human freedom.

(New Haven: Yale University Press, 1967), p. 3. This paper-bound edition has
the identical pagination of the original 1959 edition and is not otherwise
modified except for "some corrections and a few changes in wording." (p. v.)
Christian greatly elaborates on this distinction in his article entitled
"Some Uses of Reason," *The Relevance of Whitehead,* ed. by Leclerc, pp. 45-89
.esp. pp. 73ff.)
These three languages meet in a passage from *Process and Reality* quoted earlier in the chapter but which because of its importance should be noted again:

Further, in the case of those actualities whose immediate experience is most completely open to us, namely, human beings, the final decision of the immediate subject-superject, constituting the ultimate modification of subjective aim, is the foundation of our experience of responsibility, of approbation or of disapprobation, of self-approval or of self-reproach, of freedom, of emphasis. This element in experience is too large to be put aside merely as misconception. It governs the whole tone of life.¹

In this text Whitehead is interpreting (postsystematic language) freedom and other irreducible and stubborn moral facts given in lived human experience (prespystematic language) in the terminology of his Categorial Scheme (systematic language). Truly, Whitehead's task can be said to be the giving of a metaphysical elucidation of the basis of human freedom.

One final observation. Whitehead certainly does not mean that his system of general ideas is the final word in Speculative Philosophy. The attempt to reduce the stubborn facts to their intelligible foundation is seen to be limited from two directions: it is limited by the nature of the facts and by the nature of human reason. By the facts inasmuch as the world is a complexus of beings really interrelated; and by reason inasmuch as man's is a finite intellect which is greatly dependent upon language in order to exercise its activities.² Adopting a realistic stance Whitehead says:

¹ *PR*, p. 74.

² Whitehead's criticism of previous forms of atomisms is that they lead to utter unintelligibility, for "each substantial thing is conceived as complete in itself, without any reference to any other substantial thing. Such an account of the ultimate atoms, or of the ultimate monads, or of the ultimate subjects enjoying experience, renders an interconnected world of real
Thus a complete understanding is a perfect grasp of the Universe in its totality. We are finite beings; and such a grasp is denied to us.

This is not to say that there are finite aspects of things which are intrinsically incapable of entering into human knowledge. Whatever exists, is capable of knowledge in respect to the finitude of its connections with the rest of things. In other words, we can know anything in some of its perspectives. But the totality of perspectives involves an infinite beyond finite knowledge.\(^1\)

Applying this criterion to his own speculative system Whitehead can say in the "Preface" to *Process and Reality*:

> There remains the final reflection, how shallow, puny, and imperfect are efforts to sound the depths in the nature of things. In philosophical discussion, the merest hint of dogmatic certainty as to finality of statement is an exhibition of folly.\(^2\)

This is important in evaluating Whitehead's examination of human freedom. He never means to deny the reality of human beings or their lived experience of freedom. On the contrary, he takes these as given. His aim is to give a metaphysical accounting of the fact of freedom; to explain it, not to explain it away: \(^3\)"For we have either to explain the diverse senses in individuals unintelligible." (AI, pp. 169-70.)

Another limitation is that imposed by our dependence upon language. Whitehead's awareness of this limitation was noted on page 31, footnote no. 1.

\(^1\)MT, p. 58.

\(^2\)PR, p. x. In the "Epilogue" to *Modes of Thought* (adapted from an address delivered in 1935) Whitehead conveys a similar idea in what he calls "The Fallacy of the Perfect Dictionary." He says: "There is an insistent presupposition continually sterilizing philosophical thought. It is the belief, the very natural belief, that mankind has consciously entertained all the fundamental ideas which are applicable to its experience. Further it is held that human language, in single words or in phrases, explicitly expresses these ideas. I will term this presupposition, The Fallacy of the Perfect Dictionary." (MT, p. 235.) Cf. the "Fallacy of Dogmatic Finality," in AI, pp. 208-11, 380-81; also see "Mathematics and the Good," § 4, *The Philosophy of Alfred North Whitehead*, ed by Schilpp, pp. 670-71.

\(^3\)MT, p. 10.
which freedom and necessity can coexist, or we have to explain away one or other of the most obvious presuppositions of our daily thoughts." In the end, if it comes to a choice between the system so elucidated and the fact of human freedom intuitively experienced, there is little doubt as to which must be chosen. For the categorial scheme, like the more narrower schemes of any science, is "a matrix from which true propositions applicable to particular circumstances can be derived." Here there are three possibilities:

(i) the conclusion may agree with the observed facts; (ii) the conclusion may exhibit general agreement, with disagreement in detail; (iii) the conclusion may be in complete disagreement with the facts.

In the first case, the facts are known with more adequacy and the applicability of the system to the world has been elucidated. In the second case, criticism of the observation of the facts and of the details of the scheme are both required. The history of thought shows that false interpretations of observed facts enter into the records of their observation. Thus both theory, and received notions as to fact, are in doubt. In the third case a fundamental reorganization of theory is required either by way of limiting it to some special province, or by way of entire abandonment of its main categories of thought.2

The question to be asked, then, is whether Whitehead's Speculative Philosophy establishes the basis for an adequate explanation of human freedom. At the conclusion of this study we will offer a brief evaluation of Whitehead's attempt to give a metaphysical basis of human freedom. For the present we must first establish the metaphysical basis of freedom on the microscopic level of individual "actual entities." This is the task of the following chapter.

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1Pr, p. 13.

2Ibid. Also see AI, pp. 177-78; Fr, all of Chapter iii (esp. pp. 66-72, 76-79).

Similar tests are offered, it is interesting to note, by Aristotle and Mortimer J. Adler. See Aristotle's Nicomachean Ethics, x, viii, 1179a 15-25; and Adler's The Conditions of Philosophy (New York: Delta Publishing Co., 1967), Chapter ix, pp. 147-63.
CHAPTER II

ACTUAL ENTITIES: THE PLACE OF FREEDOM IN
WHITEHEAD'S METAPHYSICAL EXPOSITION

We have seen in the previous chapter that Whitehead firmly and unequivocally affirms both the reality and importance of human freedom, and therefore according to his conception of the function of metaphysics he is intent on elucidating a system that will account for this and all the stubborn facts given in all levels of experience. He is searching for the conceptual framework within which he can express his insights concerning the ultimate makeup of the whole of reality, leaving none of her parts untouched. In seeking the most general system of ideas, he is attempting to express what must be at the ultimate basis of every particular fact of experience and which manifests itself in various ways in the various facts. How, then, does Whitehead conceive of the complete metaphysical fact? What, for him, is really real, and how does he propose to establish the metaphysical basis for human freedom?

In this chapter we address ourselves to these questions. First, we
will present a brief introduction to Whitehead's metaphysics. Our discussion will be confined to summarizing Whitehead's notion of the nature and composition of the res verae, Whitehead's "actual entities." The more complete analysis of an actual entity is given in the second part of the chapter. There the "process of concrescence" is discussed in some detail in terms of Whitehead's formal discussion of freedom as stated in the 9th "Category of Obligation."

A. The Res Verae: Actual Entities

1. Actual Entities

In many works Whitehead suggests that the key for understanding the ultimate nature of reality is to be found in an analysis of human experience.\(^1\)

In the previous chapter the most important characteristics of this experience

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\(^1\)AI, p. 284: "But if we hold, as for example in Process and Reality, that all final individual actualities have the character of occasions of experience, then on that hypothesis the direct evidence as to the connectedness of one's immediate present occasion of experience with one's immediate past occasions, can be validly used to suggest categories applying to the connectedness of all occasions in nature." Also see AI, pp. 283-305, 237; PR, pp. 172, 197; MT, 173-232, esp. 231-32; S, pp. 5-6; FR, pp. 15, 26; and Whitehead's comments in Johnson, "Whitehead as Teacher," pp. 352-54, 366. On the other hand, in SMW, pp. 165, 207, 219 Whitehead says that this is but one of many possible starting points for metaphysical construction.


were outlined. As we observed, essential here is the fact of feeling ourselves as organic unities enjoying a certain immediate individuality. There can be no doubt that in some irreducible sense a human being is a complex unity of body and mind from birth to death. When we examine this feeling more closely, however, especially in light of the immediate and direct evidence of the transition, the growth, from the past to the present occasion of conscious experience, we find, says Whitehead, that our present experience is constituted as a rather complex process of "creatively appropriating" the data of our past experience into a novel unity, an "occasion of experience" thus an example of an actual occasion is myself here and now in my momentary experience as a self. As Whitehead sees it, the philosopher's task is to elucidate this experience in appropriate metaphysical categories, and this means abandoning the older categories of substance and accident.

As Whitehead developed his philosophy of organism, he explicitly rejected what he understood to be Aristotle's idea of "primary substance" as well as a derivative notion found in Descartes' Principles of Philosophy (Part I, Principle LI). There, as Whitehead notes, Descartes defines substance as "an existing thing which requires nothing but itself in order to exist." In addition to suggesting that a particular substance is essentially unrelated to any other particular, the traditional notion of substance entails the idea of an enduring substrate characterized by essential qualities and remaining

1Chapter I, pp. 18-19.  
2Pr, p. 79.  
3Ibid. In addition to this text where Whitehead is quoting Descartes also see p. 241.
numerically one amidst the change of accidental relations and of accidental qualities.\(^1\) Whitehead does not wish to deny that the idea of an enduring substance sustaining qualities expresses a useful abstraction for many purposes of life.\(^2\) A difficulty arises, however, when in philosophy we mistake this abstraction for reality and "try to use it as a fundamental statement of the nature of things...."\(^3\) In metaphysics the notion is sheer error.\(^4\) The error consists in attempting to maintain that something can exist changelessly and yet be the subject of change and in denying the existence or real internal relationships among substances.\(^5\) For Whitehead, since the notion of substance is ultimately unintelligible and since it fails to adequately explain our everyday lived experience, he is convinced that it should be avoided in metaphysics.

Having rejected a "substance metaphysics," and adopting a doctrine "that 'existence' (in any of its senses) cannot be abstracted from process,"\(^6\) Whitehead believes that the only plausible remaining alternative\(^7\) is to con-
ceive of the ultimate metaphysical realities as non-enduring internally related units of process. Although he disagrees with Descartes on the question of substance, Whitehead contends that Descartes was correct when he abandoned the notion that endurance is a quality of a substrate.

For he explained endurance as perpetual re-creation at each instant. Thus the matter of fact was, for him, to be seen in the instant and not in the endurance. For him endurance was a mere succession of instantaneous facts.\footnote{MT, p. 199.}

Following the implications of Descartes' insight, Whitehead agrees that "the ultimate metaphysical truth is atomism. The creatures are atomic...."\footnote{PR, p. 53. Cf. pp. 29-30, 50-51, 95, 116, 147-67; AI, pp. 258-67. For an excellent introduction to Whitehead's doctrine that actuality is atomic while potentiality is continuous, see Leclerc, Whitehead's Metaphysics, pp. 53-67, 71-80. Leclerc presents a more technical summary of this doctrine in another fine piece entitled "Kant's Second Antinomy;" cf."Kant's Antinomie der Teilung und die Metaphysik von Whitehead," Kant-Studien, LVI (1966), pp. 289-301.} That is to say, the enduring things of nature such as those entities disclosed in sense perception are at their basis a procession of non-substantial atomic units of experience, i.e., they are not "substances" in the classical definition of that term. It is these non-enduring occasions of experience, or what Whitehead calls variously "epochal occasions," "actual occasions," or "actual entities" which are the \textit{res verae}.\footnote{PR, pp. 17-28, 32, the 1st "Category of Existence."} Taken together in their inter-

relatedness they are the building blocks of the universe. 1 Enduring things such as electrons, molecules, stones, chairs, trees, dogs, and men are "nexus" said to be "derived" or "built up" from them. 2

As Leclerc has shown, by conceiving of the ultimate nature of reality in terms of "actual entities," Whitehead's purpose in constructing a metaphysics is similar to that of Aristotle: it is to determine "the nature of 'that' which is the 'complete existent', the 'fully existing' entity." 3 Or, as for Plato, it is to determine what is really real (to ontos on). For Whitehead, the term "actual" entails the notion of "existence in the fullest sense of the term, beyond which there is no other." 4 The "entities" which are "actual" are therefore the fully real existents "beyond which there is no other." They constitute the realm of what is really real and thus exhaust reality in the sense that apart from them there is only absolute non-being.

As Whitehead puts it,

'Actual entities'—also termed 'actual occasions' are the final real things of which the world is made up. There is no going behind the actual entities to find anything more real....The final facts are, all alike, actual entities; and these actual entities are drops of experience, complex and interdependent. 5

1"Thus the actual world is built up of actual occasions; and by the ontological principle whatever things there are in any sense of 'existence,' are derived by abstraction from actual occasions." (PR, p. 113.)

2"I hold that these unities of existence are the really real things which in their collective unity compose the evolving universe, ever plunging into the creative advance." (MT, p. 206.)

3Whitehead's Metaphysics, p. 20. The entire section (pp. 20-28) is relevant.

The primacy of actual entities as the final metaphysical realities also finds its expression in the "ontological principle."¹ By this principle, Whitehead wishes to make it clear that there can be nothing in complete separation from actual entities, nothing either in being or in thought. To the extent that "something" is in no way related to the existence of an actual entity "that thing" is in reality nothing at all. It neither is nor can it be known: "The ontological principle declares that every decision is referable to one or more actual entities, because in separation from actual entities there is nothing, merely nonentity—'The rest is silence.'"² Consequently any explanation of the nature of reality will have to be ultimately formulated in terms of the reality of actual entities; to search for an explanation, for a reason, is, in the end, to search for one or more actual entities.³ But if everything is to be referred to actual entities, it does not follow that everything is an actual entity. An analysis of their make up discloses that actual entities are neither simple nor unrelated. Whitehead seems to have clearly grasped that if the res verae are many and if they are in process, they must in some way be composed of really distinct formative elements.

²PR, p. 68.
³"The ontological principle can be summarized as: no actual entity, then no reason." (PR, p. 28.) See PR, pp. 36-37 for the longer, formal statement of this principle; also see p. 64.
2. Composition of the Res Verae

Whitehead often calls attention to the fact that the actual world disclosed in experience evidences a multiplicity of diverse but interrelated actual entities. For example, there is the evidence that our life is an ongoing succession of momentary occasions of experience, and that we live in a world inhabited by similar types of existents. The philosophical problem for him is thus the perennial one of explaining how it is that reality is in some respect both one and many. How is it that the many actual entities constitute a universe? Related to this is the problem of accounting for change and stability, for the actual world evidences itself as both one and many, changing and permanent. As Whitehead will say, in changing the many actual entities enter into and become one novel actual entity. Furthermore, Whitehead connects the fact of freedom with both problems. This coming into being of a novel individual actual entity is both free and determined—internally determined and externally free. As we shall see presently, these opposites receive their final "explanation" in Whitehead's "Category of the Ultimate."³

¹"The actual world can be analyzed into a multiplicity of occasions of actualization....Call each such occasion an 'epochal occasion.' Then the actual world is a community of epochal occasions. The epochal occasions are the primary units of the actual community, and the community is composed of the units. But each unit has in its nature a reference to every other member of the community, so that each unit is a microcosm representing in itself the entire all-inclusive universe." (RM, pp. 88-89.) Cf. RM, p. 86.

²See PR, p. 518 for the complete list of Whitehead's ultimate opposites. The relevant passage from PR has been quoted in Chapter 1, pp. 6-7 of this dissertation. Two other lists of opposites are given in AI, on p. 268 and pp. 244-45.

³PR, pp. 31-32.
and the unifying thread which turns these opposites into compatible aspects of the identical metaphysical situation are Whitehead's formative elements: "creativity" and "eternal objects."

As an introduction to the role played by the "formative elements," let us briefly consider the fact of change, for if one were to select "the" characteristic of the temporal world, it would have to be, for Whitehead, the fact "that existence cannot be separated from process." In this respect Whitehead is in basic agreement with those philosophers who, like Heraclitus, are struck by the fact of change. The flux of nature, Heraclitus tells us, can be likened to the flow of a river. Extending this ancient doctrine Whitehead adds "no thinker thinks twice and to put the matter more generally, no subject experiences twice." More specifically:

Without doubt, if we are to go back to that ultimate, integral experience, unwarped by the sophistication of theory, that experience whose elucidation is the final aim of philosophy, the flux of things is one ultimate generalization around which we must weave our philosophical system.

The elucidation of the meaning involved in the phrase "all things flow," is one chief task of metaphysics.²

However, like Plato before him, Whitehead cannot accept the Heraclitian doctrine as it stands, for it ignores the equally obvious "fact" of permanence. But at the other end of the philosophical spectrum is the doctrine of

¹PR, p. 43. In a somewhat different context Whitehead says: "We live in a world of faster and faster transformation. An ancient sage has said, 'no one crosses the same river twice.' We can apply this saying to our own case: no one lectures to the same students twice; no one lectures on the same subject twice. The flux of the world has assumed a new relation to the spans and the period of human life." ESP, p. 200.

²PR, p. 317; cf. SMW, pp. 135-36; AI, pp. 354-56.
"Father Parmenides." In the face of the stubborn facts of multiplicity and change this antithetical position identifies reality with absolutely self-identical and permanent being. Though philosophers seem to be haunted by the ghosts of these extreme doctrines, Whitehead thinks it is possible to avoid the fallacy of misplaced concreteness which lies at the basis of so many attempts at philosophical reconciliation. Commenting on the lines "abide with me;" and "Fast falls the eventide" Whitehead says,

Those philosophers who start with the first line have given us the metaphysics of 'substance'; and those who start with the second line have developed the metaphysics of 'flux.' But in truth, the two lines cannot be torn apart in this way.\[1\]

So like Plato before him, Whitehead reiterates that

The riddle of the universe is not so simple. There is the aspect of permanence in which a given type of attainment is endlessly repeated for its own sake: and there is the transition to other things….\[2\]

Far from merely echoing Plato's ancient cry, Whitehead's position is fundamentally more realistic. Whitehead shares the basic Platonic tenet which recognizes the reality of the permanent and even eternal factors manifest in some sense on all levels of experience, but he rejects Plato's extreme separation of the enduring forms from the changing things of this world. The consequences of this separation have lead to the feeling for the illusiveness and relative unreality of the temporal world.\[3\] Whitehead agrees rather

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1PR, p. 318. Also see SMW, pp. 125-26.

2SMW, p. 164; also p. 126: "Every scheme for the analysis of nature has to face these two facts, change and endurance." Cf. PR, p. 207 and MT, pp. 70-76. Cf. Sophist, 249C-D.

with Aristotle, that these principles of permanence and unity together with any other principles of change and multiplicity—as well as freedom and determinism—must be "grounded" in the very constitution of the res verae. As he says, "Aristotle in his own person expressed a useful protest against the platonic tendency to separate a static spiritual world from a fluent world of superficial experience."¹

Ultimately grounding the "ideal" within the "real," the "potential" within the "actual," and inverting the Platonic relationship, Whitehead says that "The things which are temporal arise by their participation in the things which are eternal."² The metaphysical question that Whitehead must answer thus is "What are those formative elements (or "principles," as they are called in the Aristotelian tradition) which together constitute an actual entity and thereby ultimately account for change amid permanence, unity amid plurality, and freedom amid determinism evidenced on the many levels of experience?

Lest we be taken too far afield, it must be recalled that we are here primarily interested in the question of the ontological ground of freedom of the res verae. That freedom must be grounded in actual entities seems obvious. For, as the building blocks of the universe, if actual entities are


²PR, p. 63.
in no way free, whatever else there may be in reality, there will not be freedom. Therefore our specific question is twofold: 1) "How do these formative elements function so as to 'account for' the fact of freedom of an actual entity?" and 2) "How does the answer to the first question 'account for' the fact of human freedom?" Actual entities may be free individually, that is "microscopically" speaking, but a man is a peculiar "nexus" of actual entities. Therefore "macroscopically" speaking it is not immediately obvious how men could be free agents. In the remainder of the present chapter we will address ourselves primarily to the first question. A brief introduction to the formative elements will be followed by a more lengthy examination which will attempt to outline how these elements function so as to account for the freedom evidenced by actual entities. The discussion of question two will be taken up in the following chapters.

3. Formative Elements

Recognizing that there are "many ways of analyzing the universe conceived as that which is comprehensive of all that there is," in Religion in the Making, Whitehead suggests an analysis into "(1) the actual world, passing in time; and (2) those elements which go into its formation." Of the reality to be assigned to the formative elements, Whitehead says,

Such formative elements are not themselves actual and passing; they are the factors which are either non-actual or non-temporal, disclosed in the analysis of what is both actual and temporal. They constitute the formative character of the actual temporal world. We know nothing beyond this temporal world and the formative elements

\[1\] KN, p. 87.
which jointly constitute its character. The temporal world and its formative elements constitute for us the all inclusive universe.¹

There are three formative elements, "Creativity," "Ideal entities," or, as they come to be called, "Eternal Objects," and "God":

1. The creativity whereby the actual world has its character of temporal passage to novelty.
   2. The realm of ideal entities, or forms, which are in themselves not actual, but are such that they are exemplified in everything that is actual, according to some proportion of relevance.
   3. The actual but non-temporal entity whereby the indetermination of mere creativity is transmuted into a determinate freedom. This non-temporal actual entity is what men call God—the supreme God of rationalized religion.²

The first thing to notice about creativity and eternal objects is that they function as really distinct correlative principles in a manner analogous to the "hylomorphic" composition in Aristotelian metaphysics. In the language of the schoolmen, taken together they are "that by which" (id quo) an actual entity is "that which is" (id quod). These principles can be "abstracted" or "analyzed" as really distinct elements formative of an actual entity, yet in themselves, i.e. apart from constituting actual entities, they are non-existent; neither creativity nor eternal objects enjoy the metaphysical status of "complete existents," of "fully existing entities." It is important to emphasize this point at the outset, for any subsequent references to these correlative constitutive principles must not be interpreted as suggesting that in themselves they are res verae. They enjoy ontological—and not merely epistemological—status, but their reality is that of a principle of existing entities. The necessity of speaking of these formative elements in terms of

¹Ibid.
²Ibid., p. 88. Cf. PR, pp. 63-64.
our ordinary grammatical patterns need not mislead us into thinking of these "principles of being" as "beings in themselves." To do so would be to commit what has come to be called a "category-mistake."

a) Creativity

Leclerc observes that by locating the principle of an existent's actuality within the existent, Aristotle found himself increasingly driven to ascribe 'act' \(\text{act} \) to form /Metaphysics, 1050, a3-23/ and when he came to develop a doctrine of the prime mover...he had to conclude that such an actuality must be pure form devoid of all matter /Metaphysics, 1071, b11-26/.

The upshot of this development within Aristotle's thought is well known. In the later Aristotle it is form which is the basic—and in the case of the 47 or 55 separate movers, the sole—constituent principle of the real. As Leclerc says,

(a) matter is undetermined in itself, and receives its determination from form; (b) matter as such is unknowable, and the \(\text{act} \) is known through its form; (c) it is not matter but form which constitutes the 'essence' \(\text{ess} \) of \(\text{act} \); (d) matter is not 'a this' \(\text{this} \), and it is only potentially /Metaphysics, 1042, a22/ and it is form which finally turns out to be 'actuality' \(\text{act} \) and end /Metaphysics, 1050, a4-25/.

In the final analysis, the relation of form to matter is that of act to potency, where the principle of actuality is identified with the individual's form. In short, act(uality) and all subsequent activity are located in a formal principle while potentiality is located in an indeterminate material

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1 Leclerc, "Form and Actuality," The Relevance of Whitehead, p. 171.

2 Ibid., p. 170. Also see Etienne Gilson, Being and Some Philosophers (2nd ed.; Toronto, Canada: Pontifical Institute of Medieval Studies, 1952), Chapter 11, pp. 41-73.
Whitehead too locates the principle of act—activity and actuality—within the existent entity, his actual entities, but he does not conceive of it as a formal principle. Like Aristotle's "primary matter," creativity is without a character of its own. It cannot be characterized "because all characters are more special than itself." Nevertheless, while lacking formal specification or determination in itself and although it "receives" specification from a formal principle, creativity differs from "primary matter" precisely in the fact that it is, according to Whitehead, the principle of activity. It is pure undeterminate activity. As Whitehead expresses it, creativity is "devested of the notion of passive receptivity, either of 'form,' or of external relations: it is the pure notion of activity...." It follows from this that every activity displayed by actual entities will be manifestations of creative activity.

In Whitehead's system, the activity or process evidenced by actual entities manifests two distinguishable though related aspects. If process be fundamental to actuality, then each ultimate actuality, each actual entity, must be describable as (a unit of) process. Whitehead calls this the process of "concrescence." As we shall see in some detail in subsequent

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1"Creativity is without a character of its own in exactly the same sense in which the Aristotelian 'matter' is without a character of its own." (Pr, p. 47.) Cf. RM, p. 90: "This protean character of creativity forbids us from conceiving it as an actual entity. For its character lacks determination."

2Pr, p. 47. 3Pr, pp. 46-47 4MT, p. 120.
sections of this work, the activity of "concrecence" is a complex process in
which the actual entity builds itself up, or "grows together," through appro-
 priating, or "prehending," the many actual entities in its field of experience.

Now if this process be real and not merely an illusion, the emerging occasion
of experience, what Whitehead calls the "subject" of this experience, must be
really different, that is, a genuinely novel actual entity. Real process
necessarily entails real creative novelty. In one of its aspects creativity
functions as the subject's intrinsic principle of emergent novelty.

"Creativity" is the principle of novelty. An actual occasion is a novel
entity diverse from any entity in the "many" which it unifies. Thus
"creativity" introduces novelty into the content of the many, which are
the universe disjunctively.¹

This is in accord with Whitehead's demand in *Religion in the Making* that the
principle of actuation be immanent in the actual entities and not received as
from some transcendent entity.² As Whitehead has put it in *Adventures of
Ideas*:

For example, let the working hypothesis be that the ultimate realities
are the events in their process of origination. Then each event, viewed
in its separate individuality, is a passage between two ideal termini,
namely, its components in their ideal disjunctive diversity passing into
these same components in their concrete togetherness. There are two cur-
rent doctrines as to this process. 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. Let this latter doctrine be adopted.
Then the word Creativity expresses the notion that each event is a process
issuing in novelty.³

¹ PR. pp. 31-32, ² RM, p. 69.
³ AI, p. 303; also see pp. 230-31.
On the other hand, "concrescence" cannot be divorced from the process of "transition." I experience myself growing out of the past, which is to say that in some real sense my past is internally related to, and comes to constitute a part of, my present experience. Since this experience is one of the basic sources of his doctrine, Whitehead intends to show that "atomism does not exclude complexity, and universal relativity." It is for this reason that Whitehead uses the phrase "actual entity" to refer to the res verae. The meaning of "entity" is "potentiality for process." and therefore by calling the res verae actual entities Whitehead means that the very being of an actual entity entails that it shall also be-for-another. The "subject" is also "superject." The "superjective character" of an actual entity thus refers to the fact that having come to be in its process of concrescence, the actual entity now exists for another, for it too can now be "appropriated" or "prehended" by another successive actual entity. Thus my past occasion of experience of a quarter of a second ago came to be a potential to be re-actualized by me in a novel manner in my present experience. That process whereby the completed actual entity comes to be "objectified," that is, enters or passes into the constitution of another actual entity, is called "transition." The transition within the universe whereby the many individual actual entities

1Pr, p. 53.

2Pr, p. 68. The potentiality of all entities, actual and non-actual for being and element in the coming into being of an actual entity is formulated by Whitehead as the "principle of relativity." See Pr, p. 33, 44, 76-80, 89-94, 336-42.

3Pr, pp. 43, 71-72; Al, p. 248-49. 4Pr, p. 320.
come to be "appropriateable" by a novel emerging subject expresses the second aspect of the principle of creativity. In this aspect creativity is viewed as the universal of universals characterizing ultimate matter of fact. It is that ultimate principle by which the many, which are the universe disjunctively, become the one actual occasion, which is the universe conjunctively. It lies in the nature of things that the many enter into complex unity.¹

Stated rather briefly, Whitehead's solution to the problem of the one and the many involves locating process and novelty within the very structure of the actually existent world. In concrescence a novel actual entity arises from the many, and in it the many become one. But the one is a one-more: the many have in turn been increased by one, and consequently with the transition a new synthesis, a novel actual entity, is required. And so additional ones arise ad infinitum.² It will follow that though there is finality in Whitehead's metaphysics, it is the finality of actual entities taken individually or microscopically. Macroscopically considered, there is no ultimate finality to the universe taken as a whole.

Creativity conveys the notion of an activity absolutely devoid of any determinateness or specification. It refers to pure activity, so to speak. In Whitehead's metaphysics this entails the following consequences. First, creativity refers to "something intrinsically incomplete and therefore imperfect in itself." According to Whitehead, pure indeterminateness, even the indeterminateness of pure activity, cannot exist in itself.³ It is precisely

¹Ibid., p. 31. ²Ibid., pp. 347-48. ³It appears that Whitehead has thus returned to the positions of the Greeks. For Whitehead, as for the Greek philosophers, to be is to be limited
here, in identifying unlimited and even infinite activity and actuality with imperfection (perhaps because he identifies activity with change) that Whitehead's metaphysics differs most notably from that of Thomas Aquinas. 

Unable or finite. For them, the infinite signifies indefiniteness or negation and in either case imperfection. In fact, Whitehead seems to reject, if he was ever aware of it, what with Henry of Ghent and subsequent thinkers came to be a conception of the 'infinite' as meaning a positive perfection as when predicated of God. See Etienne Gilson, History of Christian Philosophy in the Middle Ages (New York: Random House, 1955), pp. 448-49. Also see Ernan McMullin, "Four Senses of Potency," in The Concept of Matter in Greek and Medieval Philosophy. ed. by Ernan McMullin (paperback edition; Notre Dame, Indiana: University of Notre Dame Press, 1965) pp. 302-03; finally, see Leo Sweeney, "Divine Infinity," The Modern Schoolman, XXXV (1957-1958), pp. 38-51.

Whitehead's explicit rejection of the identification of infinity with perfection appears in his treatment of God. For Whitehead too, to be infinite is to be indefinite and therefore to lack one of the characteristics of an actual entity. Therefore if God is to exist as an actual entity, He must be finite in some real respect. See RM, pp. 109, 144-51; MT, pp. 107-11; "Mathematics and the Good," §7 (pp. 672-74 in Schilpp ed.)

1Following Aristotle, Aquinas speaks of the form which is the act of the substance in the order of essence. (For example, see SCC, II, 54.) But though the "substantial form" is act in the order of essence—and though in the case of material beings it functions as a correlative essential principle with "primary matter" which is itself completely indeterminate or unformed and therefore purely potential—nevertheless substantial form is itself also in potency to esse, the act of existence, in the order of existence. Thus the novelty of Aquinas' metaphysics is that he introduces the act of existence as the ontological source of all actuality and perfection. From esse is to flow all existential actualization and all intelligibility. Esse is the source of all perfection, even the perfection of the substantial form; (ST, I, 3, 4c; I, 4, 1, ad3; I, 8, 1c; De. Pot., VII, ad9; I Sent., XVII, 1, 2, ad3.); esse is "subsistere," "tendere," and "requiescere." (De Veritate, XXI, 2c; Commentary on De Trinitate, Q6, ad2.

If the act of existence taken in itself and in the fullness of its perfection appears unintelligible to us, it is because esse is supraintelligible and we are but limited knowers. Esse is infinite in its perfection, we are finite in our ability to know. As an indication of the intelligibility of esse we have the primary analogue in God's knowledge. In God the infinite object of intelligibility comes together with the infinite intelligence. (ST, 14 all; De Veritate, II all; SCC, I, see 44-71 all.) God is Ipsum Esse Subsistens. Therefore esse is unintelligible to us in Aquinas' analysis for a different reason than creativity is unintelligible for Whitehead. Creativity
to maintain that infinite and unlimited activity can also signify real, indeed infinite, perfection and actuality, Whitehead must conclude that creativity cannot exist in itself anymore than could "primary matter." Every actual existent must be limited, and since it is indeterminate, creativity is not of itself actual. Indeterminate in itself, it is necessary that creativity be specified by "another." In a word, it needs a mode of actuality—a creature. Consequently Whitehead maintains that the res verae are all of them "accidents" or "creatures of Creativity." By this he means that actual entities are definite or determinate, i.e. limited, modes of creative activity. Here too, God is no exception; rather He is creativity's primordial accident, both limiting and being limited by its activity.

is in no way intelligible in itself, nor can it be a source of intelligibility for it is a surdal element at the basis of reality that makes any attempt at ultimate and final metaphysical analysis doomed to failure.

From this it also follows that the metaphysical analysis of Aquinas and Whitehead will be similarly open-ended, but for radically divergent reasons. For Aquinas, because we are finite and the meaning of being cannot be adequately comprehended by finite intellects. Therefore we must ultimately have recourse to knowledge by analogy, and even negative theology. To be sure Whitehead readily admits the finitude of human intelligence, as we have seen in Chapter 1; but beyond this Whitehead comes to suggest that the world is also ultimately constituted by a surdal element which is at once also the ultimate principle of activity and actuality. Therefore we must have recourse to "free imagination" and to a knowledge that the world is ultimately unknowable in itself.

1 See Leo Foley, A Critique of the Philosophy of Being of Alfred North Whitehead in the Light of Thomistic Philosophy (published Ph.D. dissertation; Washington, D. C.: The Catholic University of America Press, 1946), esp. pp. 37-38, 71-84. Foley observes that by "accident" (of creativity) Whitehead means "that which gives actuality to potentiality," and he proceeds to say that hence in a way God "exists with creativity, to perfect Himself by putting creativity into act...." (p. 72). It should be noted that Foley is not denying that creativity is the ultimate principle of activity. Foley seems to be rather affirming that in order to exercise this activity creativity must be
In all philosophical theory there is an ultimate which is actual in virtue of its accidents. It is only then capable of characterization through its accidental embodiments, and apart from these accidents is devoid of actuality. In the philosophy of organism this ultimate is termed 'creativity'; and God is its primordial non-temporal accident.

Second, according to Whitehead, absolute indeterminateness is absolutely unknowable, for knowledge is always of some thing. Recall that to search for a reason is to search for some actual entity, for some definite, i.e., limited existent. It will follow that we can only know that creativity exists, for we can discover its manifestations within the things, the actual entities, that exist "creatively," if you will. In this respect creativity is analogous to Aristotle's "primary matter." Neither principle is intelligible in itself. Whitehead's metaphysics will not be fully intelligible, and therefore we will not be able to fully understand the nature of a free act, not even in principle. In short, we know that creativity is but not what it is, for it is not in itself any kind of a thing. It does not answer to what question. Indeed, to "understand" its "nature" is to realize that to ask "What is it?" is to ask the wrong question. It follows that in Whitehead's metaphysics there is an irreducible principle of irrationality, a surdal element, at the basis of actual existence. And since one of the formative elements of actual entities is creativity, actual entities are not fully conditioned or specified under or as some definite mode of actuality. This is a direct consequence of Whitehead's identification of the unlimited with the indefinite and imperfect. Thus creativity is in itself only a "that by which" and therefore needs to be "completed" by its correlative formal principle(s). God is the first or "primordial, non-temporal accident" of creativity (PR, p. 11), specifying the potentialities for subsequent concrescence and thereby He lays the first conditions for real possibilities of the emerging world.

1PR, pp. 10-11.
intelligible in themselves, nor are they intelligible in the totality of the complex interrelations.¹

Third, all actual entities, God notwithstanding, are definite or determinate and actual entities. Now if actual entities are the only fully real existents—as Whitehead so often insists by calling attention to the intent of the ontological principle; if they are creatures of creativity; and if creativity is not itself something determinate and yet the creatures are determinate somethings, then, there must be something else besides creativity, some other ontological principle, which accounts for this determination. Another way of expressing it is to observe that these two characteristics of Whitehead's existents, namely, their definiteness and their actuality—manifest in their activity—cannot be reduced to one metaphysical principle. On this point, i.e., concerning the ontological composition of the res verae, Whitehead is within the Platonic tradition which, we think, Eslick has demonstrated to be one of the few alternatives to Eleatic monism.² Like Plato,

¹See, for example, PR, pp. 67-68.


My indebtedness to the studies of Professor Leonard Eslick and the late Walter Stokes, S. J. will be obvious in my summary interpretation of the formative elements. Both men facilitate the understanding of these difficult notions, especially creativity, by placing Whitehead in the tradition of the great occidental metaphysicians: Eslick, by way of exploring the exegesis open to various possible metaphysics, and by showing the basic similarity between Plato and Whitehead's metaphysics and Stokes, primarily by way of the historical comparisons presented in PhD Dissertation and in his summary of some recent interpretations of Whitehead's creativity.
Whitehead comes to understand this composition as maintaining between a formal determining principle and an indeterminate material principle. Whitehead differs from Plato, however, in that his formal principles, what he calls "eternal objects," are in themselves potential and they are not separate from actual entities, whereas the material receptive principle, creativity, is, as we have just seen, wholly active.¹

b) Eternal Objects and God

Eternal objects are "Pure Potentials for the Specific Determination of Fact," or "Forms of Definiteness."² Taken in themselves and as not actually


¹Again it must be emphasized that this is not to say that creativity is an entity. See Chapter 11, pp. 60-61.

²PR, p. 32, 5th "Category of Existence."
"ingressing"—that is to say, as not actually informing an actual entity—the eternal objects are purely potential entities. Its whole being and being known is referred ultimately to actual entities in which it "ingresses," that is informs. When viewed as actually ingressing in actual entities, eternal objects are said to "specifically determine," or "inform," or ingress in the actual entity thus making it some definite or determined individual unit of actuality.¹

As to the various kinds of eternal objects, Whitehead maintains that "the variation in grades is endless."² However, Christian has compiled a rough inventory of Whitehead's actual usages. Christian lists the following kinds of eternal objects mentioned by Whitehead:³ (1) "Sensa...for example green and blue...and definite shades of colors"; (2) "Eternal objects of the subjective species...that is universals of quality"; (3) Eternal objects of the objective species, that is mathematical forms in the strict modern sense of mathematics"; (4) "The 'eternal objects designated by the words "any" and "just that"'; (5) "Patterns...and relations"; (6) "The abstract essence of an actual occasion"; (8) "Forms of imperfection"; and finally (9) "Grades of

¹Pr. p. 34, 7th "Category of Explanation": "That an eternal object can be described only in terms of its potentiality for 'ingression' into the becoming of actual entities; and that its analysis only discloses other eternal objects. It is a pure potential. The term 'ingression' refers to the particular mode in which the potentiality of an eternal object is realized in a particular actual entity, contributing to the definiteness of that entity." Cf. pp. 38, 63, 68, 249. See Christian, An Interpretation, pp. 215-16.


³An Interpretation, pp. 202-03.
generic abstraction, for example: scarlet, red, color...." It is these and other eternal objects, then, that ingress in actual entities. The outcome of their ingress is an actual entity informed and determined to be just the specifically determinate kind of individual thing that it actually is.

It appears, then, that Whitehead wants to say that eternal objects are analogous to Aristotle's form of the substance, i.e., what comes to be called the "formal cause." To complete the analogy, creativity can be regarded as the "material cause." Like "primary matter," creativity is totally indetermined; it is made determinate by the ingression of eternal objects. To be sure, we must not lose sight of the irreducible differences between Aristotle's and Whitehead's principles, some of which have been noted.

On the basis of the above we cannot therefore agree with A. N. John- son's repeated assertion that creativity is one of the eternal objects. As Johnson puts it, "Thus in Whitehead's broadly Platonic language, creativity is an idea (eternal object) which is exemplified in particular actual entities."  

1 Whitehead's Theory of Reality, p. 70. Johnson reaffirms this interpretation in a recent article entitled, "Whitehead as a Teacher," pp. 373-76. If Johnson's interpretation were correct, it appears that one of Edward Pols' basic thesis would be established, namely that eternal objects are the source of power and that creativity is in fact divested of any such power. (Whitehead's Metaphysics; esp. pp. vii and 126-58.) Not that Pols' argument rests on Johnson's interpretation, but that Johnson's interpretation leads to an understanding of Whitehead's metaphysics such as that given by Professor Pols, and that, moreover, Pols' subsequent criticism of such a metaphysics would be substantially correct.

Perhaps the more obvious understanding of Whitehead's agreement with Johnson's interpretation of creativity is that of John Cobb (A Christian Natural Theology, p. 209, n.73): "There is a sense in which 'creativity,' like any other idea whatsoever, is an eternal object. That is, I can think about Whitehead's idea of creativity, and when I do so, I am thinking of an eternal object. Similarly, 'actual entity' and 'prehension' are eternal ob-
The more serious difficulties with Johnson's interpretation are the following. First, there is the primary one that it neglects the text of Religion in the Making where Whitehead explicitly introduces creativity and eternal objects as distinct formative elements. Second, Whitehead maintains that eternal objects are forms of intelligibility, whereas creativity is a surd. Finally, the trouble with Cobb's interpretation is the difficulty of conceptualizing the inconceptual. This problem is not unique to Whitehead's philosophy. Thus Plato writes of the impossibility of speaking and even conceiving of absolute non-being. (Sophist, 238). What is utterly unreal is simply unknowable. Yet, non-being is "somehow" real, and in the end Plato has recourse to the "idea" of relative non-being: "otherness" (Sophist, 225 to end) and the "Receptacle" (Timaeus). Aristotle also agrees that absolute non-being is unintelligible in itself, for this, like every negation, rests on an affirmation. Thus he will say in criticism of Plato that even relative non-being presupposes relative being, and he proceeds to substitute potentiality for Plato's relative non-being. Now potentiality, even (or especially) pure potentiality—primary matter—is and as knowable only in relation to act, (Metaphysics, XV, 11, esp. 1089 a16-29.) and not at all in itself.

But is Cobb entirely off the mark? For all philosophers attempt to "know the unknowable" in some sense, and in this Whitehead is struggling with the plight of the metaphysician scrutinizing his ultimate principles. Because they are ultimate they and their opposites stand on the verge of unintelligibility: all is known in terms of them, they in terms of themselves. They are known dialectically, Aristotle would say. Now since the principles of intelligibility as intelligibility are grounded in eternal objects (never forgetting the import of the "Ontological Principle"), in order to speak of "creativity" as a "surd" is, in a sense, to attempt to make it intelligible, hence an Eternal Object. But the question is can the thing be done? We don't think so; not, at least, in the Whiteheadian manner, since intelligibility comes to creativity while creativity is not itself intelligible. Rather it is that real irrational principle at ontological poles with the rational.

1 FR, p. 80.
Whitehead's metaphysics requires that these elements function as different "kinds" of principles. The irreducibility of Whitehead's two ultimate metaphysical principles means that each accounts for one distinct though related aspect of the actual entity. Eternal objects account for the definiteness or specification and creativity accounts for act-activity and actuality. Actuality cannot "come" from essence, since eternal objects are purely potential forms of definiteness. Eternal objects are not actual in themselves and could hardly be the principle of actuality in another. They contribute to the being of that which is actual, but they do not constitute it in its actuality. Nor can definiteness "come" from creativity since the latter is a totally indefinite activity—less definite even than the errant necessity of Plato's Timaeus. Inasmuch as actuality "comes" to "essence" from a principle which is radically incomplete and is to this extent lacking in perfection, we can say that it "comes" from "below" essence—for here essence is a potential principle of limitation, completing activity and thereby actuality in the line of formal or essential specification and definite perfection. Again, to speak precisely we should say that with the "ingression" of the forms in creativity—i.e. as correlatively causitive—a limited activity, that is an actual entity, comes to be.

Whitehead's analysis of the nature and function of eternal objects leads directly to the third formative element, God. According to the ontological principle, everything must be somewhere, somewhere being some actual entity. Now inasmuch as the eternal objects are "pure potentials," "in them-
selves not actual, "it follows that there need be some actuality, some actual entity, which contains and orders the whole "realm" of ideal entities and thereby renders them actually relevant for ingression. This actual entity is God functioning in his primordial (non-temporal) nature.

The primordial created fact is the unconditioned conceptual valuation of the entire multiplicity of eternal objects. This is the 'primordial nature' of God. By reason of this complete valuation, the objectification of God in each derivative actual entity results in graduation of the relevance of eternal objects to the concrescent phases of that derivate occasion....Apart from God, eternal objects unrealized in the actual world be relatively non-existent for the concrescence in question.

God's involvement in the world as one of its formative elements entails something more than functioning as the locus and order of the universe's potentialities. For one thing, his system requires that God be introduced to explain how these potentialities come to ingress in temporal actual entities.

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1RM, p. 88.

2PR, p. 46. Cf. p. 73: "The scope of the ontological principle is not exhausted by the corollary that 'decision' must be referable to an actual entity. Everything must be somewhere; and here 'somewhere' means 'some actual entity.' Accordingly the general potentiality of the universe must be somewhere; since it retains its proximate relevance to actual entities for which it is unrealized. This 'proximate relevance' reappears in subsequent concrescence as final causation regulative of the emergence of novelty. This 'somewhere' is the non-temporal entity. Thus 'proximate relevance' means relevance as in the primordial mind of God." Also see PR, pp. 521-33; RM, pp. 88 ff.

As the source of the eternal objects, this means that God must play an active role in the actual occasion's process of concrescence. In order to understand what this role is, and to further clarify the nature and relationship of all three formative elements, it will now be necessary to analyze the actual entity in its dynamic reality, that is in terms of its process of concrescence. And since Whitehead maintains that the concrescence of an actual entity is both free and determined, we will now examine how these formative elements contribute both to the freedom and determinism of an actual entity.

B. The 9th Categoreal Obligation: The Category of Freedom and Determinism

Its importance in what follows requires that this section begin with a statement of the Category of Freedom and Determinism. It is formulated as follows:

The concrescence of each individual actual entity is internally determined and is externally free.

This category can be condensed into the formula, that in each concrescence whatever is determinable is determined, but that there is always a remainder for the decision of the subject-superject of that concrescence. This subject-superject is the universe in that synthesis; and beyond it there is nonentity. This final decision is the reaction of the unity of the whole to its own internal determination. This reaction is the final modification of emotion, appreciation, and purpose. But the decision of the whole arises out of the determination of the parts, so as to be strictly relevant to it.

As is the case with many statements found in the Categoreal Scheme, Whitehead is here succinct, even to the point of being obscure. Therefore what follows will attempt to elucidate those aspects of 9th Category which seem particularly

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1PR, pp. 41-42.
relevant for understanding the metaphysical structure of Whitehead's analysis of freedom.

Whitehead places the discussion of the freedom of an actual entity within the context of the problem of causality. He rejects the idea that an actual entity is free because it is not caused. On the contrary, just as there are causes which determine the actual entity, so there are causes which account for the entity's not being merely determined. In other words, all actual entities including God must cause themselves, or, technically speaking, each must be *causa sui*: "A temporal occasion in respect to the second element of its character, and God in respect to the first element of his character satisfy Spinoza's definition of substance, that it is *causa sui*."\(^1\) It is precisely in virtue of its self-causality that an actual entity is free:

To be *causa sui* means that the process of concrescence is its own reason, for the decision in respect to the qualitative clothing of feelings. It is finally responsible for the decision by which any lure for feeling is admitted to efficiency. The freedom inherent in the universe is constituted by this element of self-causation.\(^2\)

Therefore it is necessary to isolate those causes which taken together enable Whitehead to say that the concrescence of an actual entity is both determined and free. The important causal factors are (1) Past Actual Entities; (2) Eternal Objects; (3) the Subjective Form, the Subjective Aim, and God; (4) Creativity. We shall treat them in turn.\(^3\)

\(^1\)Ibid., p. 135. Also see pp. 339-40. \(^2\)Ibid., p. 135. \(^3\)Using the classical causal terminology analogously, we can say that past actual occasions function as efficient causes; eternal objects as extrinsic formal causes, when viewed not as ingressing in actual entities; subjective form as intrinsic formal causes, when eternal objects are actually inform-
1. Past Actual Entities

The purpose of this section is to briefly state how the past and present actual entities are causally related. We have seen that according to Whitehead a present occasion of experience grows out of its past which it "appropriates" or "prehends" as a real element constitutive of the present. Therefore it is necessary to analyze the causal factors involved in the activity of prehension.

Whitehead writes that an actual entity is constituted as a unity of its prehensions: "...the essence of an actual entity consists solely in the fact that it is a prehending thing (i.e., a substance whose whole essence or nature is to prehend." Dynamically speaking, we term that process whereby the actual entity comes to be (in) its prehension the concrescence of the actual entity. Consequently, an analysis of an actual entity, what Whitehead calls a genetic analysis or genetic division, discloses the manner in which the formative elements function in prehension, i.e., in the process of concrescence.

The cell can be considered genetically and morphologically.

\[\text{1 Ibid., p. 65. For a summary of some objections to Whitehead's contention that an actual entity is nothing more than its prehensions, i.e., that there is no center of feeling to which the feelings add content, see Johnson, Whitehead's Theory of Reality, pp. 180-81.}\]

\[\text{2 PR, pp. 334-35: "The philosophy of organism is a cell-theory of actuality. Each ultimate unit of fact is a cell-complex, not analysable into components with equivalent completeness of actuality. The cell can be considered genetically and morphologically.}\]
Any prehension involves essentially three factors. There is the "subject," that is to say, the actual entity which is prehending; there is the "object" or "datum" which is prehended; and there is the "subjective form" which is "how" the subject prehends its datum. Depending on the type of data, Whitehead further divides prehensions into two main classes. The data of "physical prehensions" are other actual entities and the data of "conceptual prehensions" are eternal objects.

To understand how these differ and the reasons for Whitehead's terminology, note that Whitehead's reaction to mechanistic materialism consists in a reaffirmation that the ultimate realities be conceived of as organisms. He insists that it is incorrect to think that matter is devoid of mind or that, as for Descartes, mind and matter are two separate substances. In either case, the outcome is to separate man from physical nature. Whitehead's solution to the body-mind problem is to conceive of every actual entity as essentially bi-polar. There is an aspect of the actual entity whereby it is directly related to and inherits from the actual entities of its immediate past. This is termed its "physical pole," and it is manifest in physical prehensions.

In the genetic-theory, the cell is exhibited as appropriating, for the foundation of its own existence, the various elements of the universe out of which it arises. Each process of appropriation of a particular element is termed a prehension. Cf. pp. 81-94.

1 PR, p. 35, the 11th "Category of Explanation."

2 PR, pp. 164-67; FR, pp. 29-30; AI, pp. 244-45.

3 PR, pp. 72, 165, 366, 379-80; FR, pp. 32-34. Here we see an example of Whitehead's "anthropomorphism."
hension. The "mental pole" is that aspect involved in the conceptual prehensions of non-actualized eternal objects. As we shall presently see, whereas the physical pole is the intrinsic proximate source of conformity with the past, the mental pole is the actual entity's proximate organ or source of novelty. It must not be thought that mentality involves consciousness, however. As we shall have occasion to see in some detail in chapter four, consciousness arises only in the mental operations of very high grade actual entities. It is the outcome of a high degree of mentality and high degree of complexity in the process of concrescence.

Either class of prehensions can be further subdivided into two species depending on whether the prehending subject includes or excludes the data. "Positive prehensions" also termed "feelings," are those in which the prehended data function as components in the makeup of the concrescing subject. "Negative prehensions" on the other hand entail some elimination of data from feeling.¹ Since the subjective form expresses the unique manner or "how" the subject prehends its data, the importance of negative prehension will be seen to lie in the fact that though negative, though eliminative of feelings, negative prehensions nevertheless contribute to the "subjective form" of the emerging subject.²

We are concerned with the causality of physical prehension, and therefore the question at hand is what is the causal relationship between the prehending subject and its data where the latter are other actual entities? In-

¹Ibid., p. 35. ²Ibid., p. 346.
asmuch as more complex causal relations can be reduced to a complex of such primary components as are found in the simple physical feelings, \(^1\) the analysis of this section will focus on the causality said to be operative in simple physical prehensions.

In a simple physical feeling there are two actual entities, "the subject of that feeling" and "the initial datum of the feeling." \(^2\) Since the datum may be prehended either positively or negatively Whitehead combines the 11th and 12th "Categories of Explanation" and says that the positive prehension considered as a transition effecting a concrescence is a complex constitution "analysable into five factors which express what that transition consists of, and effects." \(^3\) These factors are,

(i) the 'subject' which feels, (ii) the 'initial data' which are to be felt, (iii) the 'elimination' in virtue of negative prehensions, (iv) the 'objective datum' which is felt, (v) the 'subjective form' which is how that subject feels that objective datum. \(^4\)

Whitehead maintains that the simple physical feeling is an act of efficient causation: the initial datum is the "cause" and the physical feeling is the "effect." \(^5\) In virtue of the ontological principle, since "the subject entertaining the simple physical feeling is the actual entity 'conditioned' by the effect," it is more proper to consider "conditioned" actual entity as a whole to be the "effect." \(^6\) Whitehead maintains then, that the

\(^1\)Ibid., p. 361.  \(^2\)Ibid.  \(^3\)Ibid., p. 337. Italics added.

\(^4\)Ibid., p. 338. Also see Ai, pp. 229-30. A most helpful diagram and summary presentation of the meaning of these five factors will be found in Sherburne's A Key, pp. 9-13.

\(^5\)Pr, p. 361.  \(^6\)Ibid.
"initial data" are the cause and the "subject" is the effect.

It is necessary to recall that an actual entity is a "subject-superject," and as Whitehead insists, "neither half of this description can for a moment be lost sight of."¹ As "subject" the actual entity is to be conceived of as exercising a degree of freedom in directing its process of becoming.² This corresponds to what is very broadly implied in factor (1). But having come to be, the "subject" perishes and thus what was subject may now come to be an object, a datum, to be prehended by subsequent subjects. This character of a subject to be object for future subjects is the "superjective" aspect of its nature and expresses Whitehead's doctrine of "objective immortality":

An actual entity is to be conceived as a...superject which 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."³

The "initial data" mentioned as factor (ii) are consequently past actual entities now understood as available for "exercising" objective immortality. These initial data can be prehended negatively (iii) or positively (iv) and thus it is necessary to note the kind of causality operative in both instances.

a) Negative Prehension of Past Actual Entities

In order to understand the doctrine of negative prehensions, it is

¹Ibid., p. 43.
²Technically speaking, it presides "over its own immediacy of becoming." (PR, p. 71).
³PR, p. 71. The last sentence is, of course, a restatement of the principle of relativity; see PR, p. 33.
necessary to locate our discussion within the general meaning of creativity. For, as we shall now attempt to show, Whitehead's discussion of negative pre-hension is meant to specify the manner in which creativity functions as one of the intrinsic sources of the actual entity's freedom.

Comparing creativity with Spinoza's "one substance," Whitehead says, "in analogy with Spinoza, his one substance is for me the one underlying activity of realisation individualizing itself in an interlocked plurality of modes." ¹ Again, when speaking of creativity, Whitehead says,

The general activity is not an entity in the sense in which occasions or eternal objects are entities. It is a general metaphysical character which underlines all occasions, in a particular mode for each occasion. There is nothing with which to compare it: it is Spinoza's one infinite substance.²

Creativity is this "underlying activity" which interrelates all actual entities. But, where Spinoza's "one substance" is "illegitimately allowed a final 'eminent' reality, beyond that ascribed to any of its accidents,"³ creativity "is an ultimate which is actual in virtue of its accidents...and apart from these accidents is devoid of actuality."⁴ In other words, while Spinoza's "one substance" is the final immanent reality because it is the fullness of its being, creativity is ultimate for the antithetical reason that it functions as existing non-being.

It is precisely in its function as non-being that Whitehead's creativity is analogous to the "receptacle" of Plato's Timaeus, and to "other-

¹SM, p. 101. ²Ibid., p. 255; also see pp. 180-81.
³PR, p. 11. ⁴Ibid., pp. 10-11.
ness" of the Sophist. Like Plato, Whitehead must account for actual beings by turning to the existence of relative non-being—and fundamentally for the identical metaphysical reason.

What Plato would regard as the fleeting world of experience is for Whitehead the locus of the realm of the really real. According to the "ontological principle" the actual entities are the only actualities. Therefore, there can be no separate world of essences existing apart from the actual entities, and therefore there is, nevertheless, a metaphysical composition of really distinct principles which "go into" the very constitution of actual entities. Further, the actuality of the actual entities is one of relatedness. No actual entity exists in absolute isolation from any other actual entity in its actual world, nor consequently from any entity in that world. This is Whitehead's principle of Relativity. It is fundamental in White-

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1On this point, I believe that Walter Stokes' mild criticism of Leclerc is justified. In his Whitehead's Metaphysics, (and to a greater extent in "Form and Actuality") Leclerc develops an excellent comparison of the metaphysical doctrines of Aristotle and Whitehead. However, as Stokes maintains, in order to understand Whitehead it is not enough to make this comparison if, while so doing, one neglects the fundamental issue which is "the characteristic Platonic position rejected by Aristotle; namely, the reality of nonbeing." Rather, as Stokes says, "Therefore, it is important to place creativity in the Platonic tradition with its insistence on the reality of non-being and not limit the consideration to analogies with Aristotle. ("Recent Interpretations," p. 329,) Also see Stokes, "The Function of Creativity," pp. 83-89, 350-53. This interpretation of Whitehead's affinity with Plato is shared by Eslick, as can be seen from his many papers on this topic. See for example the latter's "Existence and Creativity." Finally, see Whitehead's "Analysis of Meaning," ESP, pp. 130-31.

2PR, p. 66.

34th "Category of Explanation," PR, p. 33. Also see AI, Chapter viii, pp. 152-78.
head's metaphysics. Its importance can hardly be overemphasized.

The organic relatedness of actual entities means that no actual entity exists in isolation— for it could not therefore be apprehended, i.e., it could not affect its very objectification, nor, consequently, could it be an object of knowledge. The point is that there is no way that such isolated entities could manifest themselves. The "stubborn facts" of the matter are that we know actual entities which even when analysed are found to exist relatively. Recall that according to Whitehead we have an immediate and direct awareness of the unity of our momentary occasions of experience. Moreover, our very knowledge of them automatically rules out total isolation. Whitehead means that every entity goes into the very constitution of any individual actual entity in its actual world.

Whitehead offers his doctrine of relatedness as the very antithesis of mechanistic materialism. The individuality of an organic actual entity is going to be at once an individuality which is internally related. This will be technically expressed in Whitehead's doctrine of prehensions. 1

Eslick notes,

An organic universe requires some kind of internal relatedness in the very being of the entities of world, and, consequently, some kind of mutual dependence upon one another. Such entities are, quite literally, members of one another. 2

1PR, pp. 443-48.

Now relatedness goes hand in hand with composition. As we have noticed, the basic components of an actual entity are creativity and eternal objects. In this composition, actual existence is the outcome of the extrinsic limitation of essence. It does not flow from essence, (i.e. it is not an intrinsic limitation) for the eternal objects are merely the potentialities for actuality.

As pure potentialities for differentiation, the eternal objects do not have within themselves any principle of actual differentiation. Nor do they have the where-with-all to effect existential actuation. To be sure, the eternal objects are entities, but they are not actual entities. It necessarily follows that something other than these forms of definiteness account for the coming into actuality of an actual entity. Something not located within the nature of eternal objects accounts for the actual definiteness which an actual entity manifests. This something is not located within the nature of eternal objects. As Eslick has shown,

The existing non-being of the Platonic-Whiteheadian family is relative only, and not absolute. It is precisely that aspect of contingent, indeterminate relatedness to others which now enters into the constitution of the actual being of every entity, and which is incapable of being completely expressed and rationalized by the influx of formal or essential definiteness. All differentiation and existential actuation is the function, not of the order of essence, which is in itself a domain of mere abstract possibility, but of the selective reception of essence in themselves unrelated and unordered into a "material" matrix of common, indefinite relatedness.¹

Having no actuality apart from other entities, the very actuality of

¹"Existence and Creativity," p. 152.
an actual entity is known—but also ontologically constituted—by the relationship into which it has entered. In a real sense an actual entity’s actuality is not fully its own. In other words, there is a mutual immanence exhibited in every group of actual entities. This immanence "is the function of belonging to a common Receptacle."1

The receptacle imposes a common relationship on all that happens but does not impose what that relationship shall be...Plato's Receptacle may be conceived as the necessary community within which the course of history is set, in abstraction from all the particular facts.2

It is our opinion that creativity is Whitehead's Receptacle. It is that reality—as relative non-being—in virtue of which actual entities are "dynamis." It is that in virtue of which eternal objects are actualized and thereby there comes to be a determined something actual, an actual entity.3

The difficulty, of course, is to understand how creativity, which is of itself formless, can be active and thereby account for actual entities which are determined (i.e. informed) actualities.4 We believe that Whitehead's solution lies in "creativity's ability" "to actualize boundless abstract possibility by negation and exclusion."5

To be an actual entity is to be something definite. Whitehead expresses this thought when he says, "All forms of realization express some as-

1AI, p. 258. 2Ibid., p. 192. 3PR, pp. 46-47.

4Pols acknowledges Whitehead's intention of grounding activity and therefore "power" in Creativity. But Pols denies Whitehead has succeeded. Instead, Pols takes the view that the ontological ground of power is, or should be, Whitehead's Eternal Objects. (Whitehead's Metaphysics, esp. Chapters iv-v, pp. 126-58.)

pect of finitude. Such a form expresses its nature as being this, and not that. In other words, it expresses exclusion; and exclusion means finitude.\(^1\)

In other words, being this involves in its very being the not being of something else. In this doctrine exclusion is immanent in the very being of an actual entity.

Now to be definite always means that all the elements of a complex whole contribute to some one effect, to the exclusion of others. The creative process is a process of exclusion to the same extent as it is a process of inclusion.\(^2\)

Unlike the philosophy of Plato where the Demiurge acts upon the chaos bringing a cosmos into an imitative existence, Whitehead locates the principle of actuality in the very constitution of actual entities and here it is "the force" which also accounts for novelty. This is expressed where Whitehead speaks of decision as the expression of the actual entity itself.

For rationalistic thought, the notion of 'giveness' carries with it a reference beyond the mere data in question. It refers to a 'decision' whereby what is 'given' is separated off from what for that occasion is 'not given'. This element of 'giveness' in things implies some activity procuring limitation....

The ontological principle asserts the relativity of decision; whereby every decision expresses the relation of the actual thing, for which a decision is made, to an actual thing by which that decision is made.\(^3\)

This point is made even clearer in the following passage:

Conversely, where there is no decision involving exclusion, there is no giveness. For example, the total multiplicity of Platonic forms is not 'given'. But in respect of each actual entity, there is giveness of such forms. The determinate definiteness of each actuality is an expression of a selection from these forms. It grades them in a diversity of relevance.\(^4\)

\(^1\)KT, p. 107.  
\(^2\)KN, p. 109.  
\(^3\)PR, p. 68.  
\(^4\)Ibid., p. 69; cf. also pp. 70-72.
This elimination from feeling, this decision which "cuts off" a "this" from "that," this "decision amid potentiality" is located within the very actuality of the actual entity and is involved in what Whitehead is describing when he speaks of "negative prehensions." Taken together positive and negative prehensions specify Whitehead's general Principle of Relativity. Through its prehensions, positive and negative, an actual entity is related to every other entity in the universe—and yet is not identical with any one of them:

Further, in the complete particular 'givenness' for an actual entity there is an element of exclusiveness. The various primary data and the concrescent feelings do not form a mere multiplicity. Their synthesis in the final unity of one actual entity is another fact of 'givenness.' The actual entity terminates its becoming in one complex feeling involving a completely determinate bond with every item in the universe, the bond being either a positive or a negative prehension. This termination is the 'satisfaction' of the actual entity.  

Herein lies the importance of negative prehensions. The negative prehension expresses the fact that some datum is held "as inoperative in the progressive concrescence of prehensions constituting the unity of the subject."  

"A negative prehension is the definite exclusion of that item some item of the universe from positive contribution to the subject's own real internal constitution."  

Though negative, the prehension is active "via its contribution of its subjective form to the creative process; but it dismisses its 'object' from the possibility of entering into the datum of the final satisfaction."  

\[1\]Ibid., pp. 70-71; also see pp. 65-66 and 79-80.  

\[2\]12th "Category of Explanation," PR, p. 35.  

\[3\]Ibid., p. 34.  

\[4\]AI, p. 298.
Whitehead has admitted that the doctrine of negative prehensions "requires examination, and probably should be recast."\(^1\) Whitehead has good reason, however, for not abandoning this doctrine.\(^2\) Without negative prehensions "in a metaphysics of mutual immanence and universal relativity, governed by the law that all determination is negation, it is impossible to preserve the individuality of actual entities."\(^3\) But individuality is precisely what Whitehead wishes to preserve. The _res verae_ are a multiplicity of individual actual entities.\(^4\)

Existing non-being thus finds its way into the philosophy of Whitehead as it did for Plato. But for Whitehead it appears under the guise of negative prehensions and ultimately in creativity which forms a part of the general category presupposed in this more special category. Creativity effects the individuation in existential actuation of the actual entity through the entity's activity of positive and negative prehensions: by positive prehension, whereby as a consequence of negative prehension under the subsequent activity of abstractions, the emerging novel actual entity appropriates the the real potentialities of the past actual entities and eternal objects; and

\(^{1}\text{ESP, p. 130.}\)

\(^{2}\)"However I adhere to the position that it is an approximation to an important truth." _ESP_, p. 130.

\(^{3}\)Leonard Eslick, "Existence and Creativity," p. 162.

\(^{4}\)"It is to be noted that every actual entity, including God, is something individual for its own sake; and thereby transcends the rest of actuality." (_PR_, p. 135.) Whitehead immediately adds, however, that nevertheless creativity transcends its creatures: "And also it is to be noted that every actual entity, including God, is a creature transcended by the creativity which it qualifies."
by negative prehensions, whereby the actual entity is really something novel and not merely a reproduction of the past.

Process is meaningful only where the emergent actualities are genuinely new. No actual entity can be completely determined to be what it is by the data it prehends—by what was in the past. Creativity is the ultimate principle of novelty. Now an actual entity is novel inasmuch as it is not this or that actual entity. It must be other than every other actual entity. Negative prehension is Whitehead's way of expressing this function of creativity within the limits of the ontological principle. Since only actual entities are really real, the "decisions amid potentiality" must be expressed in terms of the agency of actual entities. This Whitehead attempts to do by introducing the notion of negative prehensions. Aware of his affinity to Plato Whitehead says,

The point is that the subjective unity of feeling and the objective unity of mutual relevance express respectively a relation of exclusion to the world beyond. There is a completion which rejects alternatives.... This doctrine extends, or distorts, the meaning of another saying of Plato, when he says that non-being is a form of being. Here I am saying that rejection is a form of prehension.¹

We can now return to our analysis of the five factors entailed in prehension and briefly state the causal relation between actual entities in negative prehension.

On the one hand, in negative prehension the eliminated data certainly are not efficient causes of the subject, for factor (iii)—"the 'elimination' in virtue of negative prehensions"—refers to the activity of negative prehens-

¹"Analysis of Meaning," in ESP, p. 130.
The elimination of a datum originates from the side of the subject and not that of the datum, for obviously the datum cannot effect its own elimination. On the contrary, negative prehension is a proximate principle of novelty in the emerging actual entity, and therefore it is a principle accounting for the actual entity's freedom as actual otherness. It is that by which the actual entity is other than its past. Moreover, as we have seen, creativity is the ultimate intrinsic principle of the emerging subject's activity of negative prehensions. Inasmuch as the subject is a creature of creativity it is, as subject, a being whose very actuality is one of activity and novelty. To be an-other actual entity, the concrescing subject re-acts negatively to the imposition of the definiteness and determinateness given by the datum. As a creature of creativity the novel actual entity, like Plato's errant necessity, cannot be completely determined (mastered) by the definiteness of its past. The subject cannot merely duplicate the past. Factor (iii) accounts for the fact that in the very origination of the subject from the initial datum the subject is not completely determined by the total complexis of the actual entity's actual past world. The subject is even simply free to reject some data. Here, then, the subject prevents some datum from being an efficient cause, i.e., from being "immanent" in the subject as a constitutive part of the subject's being.

On the other hand, the actual entity is determined even in its activity of eliminating data, for the negative prehension does contribute its subjective form to the creative process. That is to say, this subject would not

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1 See Christian, An Interpretation, pp. 345-46.
be what it is, if it did not eliminate that datum. The subject is determined by having to eliminate that datum instead of some other datum. Thus the subject is affected even where it reacts negatively to the datum, for reaction is "reaction to," elimination is "elimination of." The subject cannot react to the datum, even negatively, without being affected by the encounter. The manner of causality of the subjective form in negative and positive prehension will be discussed in the section dealing with subjective form.

b) **Positive Prehension of Past Actual Entities**

This brings us to factor (iv) which refers to the "objective datum" which is positively felt. It is this datum which is the efficient causes of the emerging subject. As Christian has shown, Whitehead's treatment of efficient causality has two sides. Negatively, Whitehead "opposes the phenomenalistic view that causation is exhaustively interpretable in terms of mere succession of data," and the externalistic conception which views causation as a "transference of accidental qualities between things which are essentially isolated from each other." Positively, "He differs from the phenomenalistic view by taking causation as a dynamic process relating real things. He differs from the 'externalistic' view by holding that the internal natures of the real things can furnish an intelligible explanation of the process which takes place between them."

In other words, since "efficient causation expresses the transition from actual entity to actual entity," the past must be actually "immanent" in

\[1\text{Ibid.}, \text{pp. 126-28.}\]
the present. ¹ We are not here concerned with a complete formulation of the nature of this immanence;² suffice it to say that to the extent that the subject is caused by the datum to that extent the subject's being is constituted by the datum—the datum is internally related to the subject³—and thus the subject is determined by the datum to be what "it" is. The "it" in the previous sentence is purposely ambiguous, for it means (1) that the novel actual entity, the subject, is determined to be what "it" the datum is;⁴ it also means (2) that the subject is what "it" the subject is precisely in virtue of the datum out of which it arises. The very being of the subject is originally derived from the being of the datum which now exists as an essential component of the subject; which is to say that in the act of simple physical prehension the subject is determined by the datum.

This is not to say that the subject is completely determined by the datum; but it does mean that no actual entity can be so free as to be completely independent of its datum. Quite apart from the related question of how the subject reacts to its datum, i.e. apart from considering the nature

¹FR, p. 228.

²On the meaning of "immanence," "relatedness," and "causal efficacy" see Leclerc, Whitehead's Metaphysics, pp. 100-23; also of importance is William Christian's thorough analysis in his An Interpretation, pp. 119-53. See the related though different interpretation implied on pp. 82ff of Chapter ii of this dissertation. Finally see Chapter iii of this dissertation.

³SMW, pp. 179-80.

⁴"The process creates itself but does not create the object of the data for that occasion which it receives as factors in its own nature." (AI, p. 230.)
and extent of its freedom, whatever this turns out to be, the fact remains that since the subject originates from the datum it cannot be completely free of its datum. Thus Whitehead says,

The character of an actual entity is finally governed by its datum; whatever be the freedom of feeling arising in the concrescence, there can be no transgression of the limitations of capacity inherent in the datum. The datum both limits and supplies. It follows from this doctrine that the character of an organism depends on that of its environment.¹

Speaking of the more complex situation where many actual entities constitute the data presented to the emerging subject, Whitehead consequently refers to the data as exercising deterministic efficient causation: this is "the inflow of the actual world in its own proper character of its own feelings, with their own intensive strength, felt and re-enacted by the novel concrescent subject."² From this it follows that there is no such thing as absolute freedom:

But there is no such fact as absolute freedom; every actual entity possesses only such freedom, as is inherent in the primary phase 'given' by its standpoint of relativity to its actual universe. Freedom, givenness, potentiality, are notions which presuppose each other and limit each other.³

Freedom as cause sui will therefore have to be a freedom exercised within at least the limitations imposed by the initial data. Other determining or limiting factors there may be, but at least this much determination stands at the ontological origin of the emerging subject.

Whitehead returns to this theme when discussing the phases of concrescence. Although an actual entity may be viewed as a cell manifesting

¹PR, p. 168. Also see p. 101.
²Ibid., p. 374.
atomic unity, there is an important sense in which it is proper to speak of
the actual entity's process of concrescence, its coming-into-being.¹ The con-
crescing actual entity passes through a number of phases whose goal is the com-
pletion of the actual entity in the final phase termed the "satisfaction."

In a process of concrescence, there is a succession of phases in which
new prehensions arise by integration of prehensions in antecedent phases.
In these integrations 'feelings' contribute their 'subjective forms' and
their 'data' to the formation of novel integral prehensions; but 'neg­
tive prehensions' contribute only their 'subjective forms.' The process
continues till all prehensions are components in the one determinate in-
tegral satisfaction.²

Whitehead has much to say about the mechanics of the process of con-
crescence,³ as we shall see when we use the categorial scheme in Chapter IV
to explain human freedom. Speaking somewhat generally, the concrescence of an
actual entity can be understood as a process falling into three basic phases:
the "initial," "intermediate" and "final."⁴ What is common to all of White-

¹For an excellent statement of Whitehead's epochal theory of actuality
see Leclerc, Whitehead's Metaphysics, pp. 63-80. Of equal value is Christian's
An Interpretation, Chapter iv, esp. pp. 78-82. Also see Sherburne, A Key,


³In order to completely elucidate the complexities involved in the
process of concrescence, Whitehead introduces his nine "Categories of Obliga-
tion": PR, pp. 39-42 where they are stated, and esp. pp. 317-28 and 331-428
where they are developed and applied.

247-50, 255-56. Similarly in PR, p. 323 Whitehead refers to the "three stages
in the process of feeling: "(i) the responsive phase, (ii) the supplemental
stage, and (iii) the satisfaction."
head's discussions of the initial phase is that it represents the subject's initial relation to the data out of which it arises: "The first phase is the phase of pure reception of the actual world in its guise of objective datum for aesthetic synthesis. In this phase there is the mere reception of the actual world as a multiplicity of private centers of feeling...."\(^1\) Now the division of a simple physical prehension can be viewed from two points of reference. From the side of the concrescing subject we speak of the initial phase in order to refer to the subject as being initially determined by its objectified datum and to distinguish this moment of the subject from its subsequent free development. From the side of the datum we speak of it as exercising deterministic efficient causality. Therefore in the initial phase the datum is the efficient cause and the subject is the effect.

It remains to be shown that creativity functions as a link between past and present actual entities, between datum and subject. We have seen that creativity is operative in the activity of negative prehension and that this activity belongs to the concrescing actual entity. Moreover, it consists of an active elimination of some data. What is being prehended either negatively or positively is another actual entity as datum; which means that the datum in the initial phase is something actual conditioning the creativity. Therefore we can also ask what is creativity's role when viewed from the side of the datum. Must not creativity be involved in the causal activity (efficacy) of the datum as well? It would seem it must since (1) creativity is one

\(^1\)PR, p. 323; cf. AI, pp. 229-30, 269; MT, pp. 120-31.
of the formative elements constituting actuality, (2) creativity seems to function as the ontological source of formless activity in virtue of which the totality of actual entities are interrelated and the multiplicity of actual entities constitute a cosmos, that is one actual world, and (3) since the Category of the Ultimate is presupposed in the more special categories.

Speaking of the two kinds of change or process, which he here calls "fluency," Whitehead says,

One kind is the fluency inherent in the constitution of the particular existent. This kind I have called 'concrescence.' The other kind 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 constitution of other particular existents elicited by repetitions of process. This kind I have called 'transition.' Concrescence moves towards its final cause, which is its subjective aim; *transition* is the vehicle of the efficient cause, which is the immortal past.\(^1\)

Now just as creativity is the primordial activity grounding the process of concrescence, so is it the ground of the process of transition:

The creativity in virtue of which any relative complete actual world is, by the nature of things, the datum for a new concrescence, is termed 'transition.' Thus, by reason of transition, 'the actual world' is always a relative term, and refers to that basis of presupposed actual occasions which is a datum for the novel concrescence.\(^2\)

Furthermore the past actual world as data are also spoken of as real potentialities for concrescence,\(^3\) and therefore creativity should be a consti-

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\(^1\) *PR*, p. 320. Italics added. Also, p. 228: "...efficient causation expresses the transition from actual entity."


\(^3\) "Thus we have always to consider two meanings of potentiality: (a) the 'general' potentiality, which is the bundle of possibilities...provided by the multiplicity of eternal objects, and (b) the 'real' potentiality, which is conditioned by the data provided by the actual world." (PR, pp. 101-02.)
tutive principle in that which is a real potentiality. And so it is; Whitehead expresses this aspect of creativity in an especially relevant though somewhat lengthy passage.

'Objects' for an occasion can also be termed the 'data' for that occasion. The choice of terms entirely depends on the metaphor which you prefer. One word carries the literal meaning of 'lying in the way of', and the other word carries the literal meaning of 'being given to'. But both words suffer from the defect of suggesting that an occasion of experience arises out of a passive situation which is a mere welter of many data.

Creativity.—The exact contrary is the case. The initial situation includes a factor of activity which is the reason for the origin of that occasion of experience. This factor of activity is what I have called 'Creativity'. The initial situation with its creativity can be termed the initial phase of the new occasion. It can equally well be termed the 'actual world' relative to that occasion. It has a certain unity of its own, expressive of its capacity for providing the objects requisite for a new occasion, and also expressive of its conjoint activity whereby it is essentially the primary phase of a new occasion. It can thus be termed a 'real potentiality'. The 'potentiality' refers to the passive capacity, the term 'real' refers to the creative activity, where the Platonic definition of 'real' in the Sophist is referred to. This basic situation, this actual world, this primary phase, this real potentiality—however you characterize it—as a whole is active with its inherent creativity, but in its details provides the passive objects which derive their activity from the creativity of the whole. The creativity is the actualization of potentiality, and the process of actualization is an occasion of experience. Thus viewed in abstraction objects are passive, but viewed in conjunction they carry the creativity which drives the world. The process of creation is the form of unity of the universe.1

Let us now summarize these lengthy sections on negative and positive prehensions. The past actual entity is the efficient cause initially determining the concrescing subject by supplying the datum out of which the subject arises. However the whole process is grounded in the agency of creativity. First, from the side of the datum, we have seen that to be an actual entity as datum is to be a real potentiality; which means to be internally related

1AI, pp. 230-31; also see p. 269.
to (immanent in) the emerging subject under the agency of creativity. From this perspective, creativity is viewed macroscopically as the ground of transition; it is the dynamic agency in actuality moving the world to novel actuality. Yet even here creativity functions negatively as a principle of novel activity. To be a novel subject is to be internally related to past actual entities by being not them: that is, by having arisen from them and not some other, and yet by being other than them. Transition therefore expresses the dynamic otherness characterizing the agency of creativity. Having come to be, the actual entity perishes and what becomes objectively immortal does so at the price of ceasing to be exactly what it was before. In becoming objectively immortal in the world, some elimination abstraction, has taken place and thus the past entity exists for (in) the subsequent subject only as an abstract version of itself. Reproduction is never complete.

Second, from the side of the subject in concrescence—i.e. microscopically speaking—two possibilities are open. Negativelyprehending some of the past datum the subject eliminates them from efficacy, and therefore begins to be by being simply other than its past. Nevertheless, though negative, there is a contribution to the subject's subjective form and thereby to its ultimate satisfaction. Positivelyprehending the datum, the subject is said to be efficiently caused or determined by them. However, what is positively prehended is not simply reproduced in the subject's subjective form. As we shall presently see, even the datum positively prehended are changed by the very activity of the prehension, for each subject's subjective form is "how" it, the subject, feels these data in conjunction with the valuation that
it, the subject, brings to these data. That is, the subject is also a creature of creativity and therefore these data may be viewed as analogous to Plato's forms in that they will not be able to completely master the non-formal character of creativity's activity.

c) **Prehension and Contemporary Actual Occasions**

Before we conclude this section, something needs to be added concerning contemporary actual occasions. Whitehead maintains that actual entities are contemporaries when neither belongs to the "given" world of the other.¹ Not belonging to the given world means that "so far as physical relationships are concerned, contemporary events happen in causal independence of each other."² For example, as Whitehead says,

actual occasions, A and B, are mutually contemporary, when A does not contribute to the datum for B, and B does not contribute to the datum for A, except that both A and B are atomic regions in the potential scheme of spatio-temporal extensiveness which is a datum for both A and B.³

Now inasmuch as A and B are causally independent, neither restricts nor in any way directly determined the being of the other. Neither is an efficient cause of the other.

As Christian has cogently argued, Whitehead's system requires this doctrine of contemporaries in order to explain real individuality. Unless some actual entities be causally independent, it is difficult to see how the process of concrescence could ever be completed, and how, as a consequence, an


³**PR**, p. 188. Also see **AI**, pp. 252-53; all of this chapter in **AI** (xii, pp. 246-57) is important especially for Whitehead's statements concerning the distinction between direct and indirect immanence of actual entities.
entity could attain the unity of synthesis wherein lies its individuality.\textsuperscript{1}

In this sense, contemporariness defines a necessary condition of freedom. As regards their contemporaries, actual entities are "completely free":

The causal independence of contemporary occasions is the ground for the freedom within the Universe. The novelities which face the contemporary world are solved in isolation by the contemporary occasions. There is complete freedom. It is not true that whatever happens is immediately a condition laid upon everything else. Such a conception of complete mutual determination is an exaggeration of the community of the Universe.\textsuperscript{2}

Another way of saying this is to note that there is no direct prehension between contemporaries: neither physical nor conceptual,\textsuperscript{3} positive nor negative. In their causal independence and concomitant freedom, contemporary actual entities thus bear a similarity to Leibniz's "windowless" monads. But whereas Leibniz must introduce God and the doctrine of pre-established harmony to explain the apparent interaction of the entities of our experience, we shall see in the following chapter that contemporary actual entities are indirectly, though really, immanent, i.e. related.

2. Eternal Objects

Earlier it was observed that eternal objects are spoken of from two points of view, in themselves as pure potentials for the specific determination of fact, and in relation to actual entities as forms of definiteness.

Two questions especially come to mind in connection with Whitehead's doctrine of freedom. (1) How do the eternal objects come to inform and thus

\textsuperscript{1}An Interpretation, pp. 59-60
\textsuperscript{2}AI, p. 255.
\textsuperscript{3}Cf. Christian, An Interpretation, pp. 57-58.
determine actual entities? and (2) How do they come to function as the cor-
relative ground of novelty and freedom? An answer to these questions begins
to emerge when we recall that an actual entity is bi-polar.

In each concrescence there is a twofold aspect of the creative urge. In one aspect there is the origination of simple causal feelings; and in the other aspect there is the origination of conceptual feelings. These contrasted aspects will be called the physical and the mental poles of an actual entity. No actual entity is devoid of either pole; though their relative importance differs in different actual entities.¹

Thus the simple causal feelings arise at the physical pole of the concrescing actual entity and correspond to what in the previous section were termed the relation of causal efficacy maintaining between the subject and its data. Since the data are actual entities it is in virtue of its physical pole that the subject faces the actual world of actual entities. More specifically, the physical prehension in the initial stage of concrescence arises at the subject's physical pole. But how are eternal objects involved in physical prehension?

From the physical feeling is derived "a purely conceptual feeling whose datum is the eternal object determinant of the definiteness of the actual entity, or of the nexus, physically felt."² That is, an eternal object arises in the subject which corresponds to an eternal object which informed the datum. Which is to say that eternal objects function to relate both datum

¹PR, p. 366.

²Ibid., "The Category of Conceptual Valuation," pp. 39-40. Cf. pp. 378, 379-80. Note that the initial stage of concrescence corresponds to these initial moments in the subject, the moments when the subject physically and "then" conceptually prehends, either positively or negatively, its datum: See PR, p. 380.
and subject. To be sure, in causal efficacy the subject "re-enacts," or "reproduces," or "conforms," to its data, and therefore prehensions always have a "vector" character:

By reason of this duplicity in a simple physical feeling there is a vector character which transfers the cause into the effect. It is a feeling from the cause which acquires subjectivity of the new effect without loss of its original subjectivity in the cause. Simple physical feelings embody the reproductive character of nature, and also the objective immortality of the past.

Nevertheless, "conformity" cannot be understood without reference to the eternal objects, because it is eternal objects functioning relationally between the cause and the effect, the past and the present, that ground the very meaning and being of "conformity":

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 rôle, the eternal object is functioning relationally between the initial data on the one hand and the concrescent subject on the other. It is playing one self-consistent rôle in obedience to the category of objective identity.

It follows that the unity and enduring character, that is the solidarity of the universe, is grounded in this relational functioning of eternal objects.

The one eternal object in its two-way function, as a determinant of the datum and as a determinant of the subjective form, is thus relational.

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1Ibid., p. 364.

2Ibid., pp. 363-64; cf. pp. 177-84, 482-83, 228-29, 246-47.

3Ibid., p. 364.
In this sense the solidarity of the universe is based on the relational functioning of eternal objects.¹

This brings us to the second question concerning how eternal objects function as sine qua non for novelty and freedom. If creativity and eternal objects are correlative principles, and if to be an actual entity is to be a determinate atomic unit of process, then eternal objects should in their own way also account for an aspect of novelty and freedom. Summarizing Whitehead's position on this point Leclerc states the matter succinctly:

There cannot be anything 'novel', that is, different from what is already 'actual', unless there be 'entities' which are 'potential'. As Whitehead has put it, [*PR*, p. 72] it is evident that the notions of 'givenness' and 'potentiality' are meaningless apart from a multiplicity of potential entities. These potentialities are the 'eternal objects'.

The point is that, by the ontological principle, something 'novel' cannot come into existence 'out of nowhere'; it must be 'given' as an 'unrealized potentiality'. This 'unrealized potentiality' must be constituted by 'entities'; the word 'unrealized' simply underlines the contrast of 'potentiality' with 'actuality.' Thus the notion of 'novelty' can have no meaning unless there be entities which are 'pure potentials'. These are the eternal objects.²

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¹[*PR*, p. 364. In other words, to say that past actual entities are objective data is to say that they are now real potentialities for the emerging subject's process of concrescence. But as Leclerc has shown, "all potentiality in the universe of whatever kind, is derivable from form. For example, when we speak of the potentiality of an actuality—that it has the potentiality to be this or that—the potentiality to which we refer is derivable from the element of form in the actuality, and not from the element of act." ("Whitehead and the Theory of Form," in *Process and Divinity*, p. 132.) Therefore the past actual entity can be a real potentiality not in virtue of its actuality—indeed, it is no longer actual; it is superject—but in virtue of its eternal objects, its forms of definiteness.

²Whitehead's *Metaphysics*, p. 97. The second set of brackets occur in the text. Christian also takes the view that eternal objects are required to account for novelty—and formal individuality—of actual entities. See Christian's *An Interpretation*, pp. 215-16.
In order for the subject to be novel, and, moreover, in order for it to freely initiate its novel actuality, it must be possible for the subject to be other than its past. It must be able to be some other kind of definite actual entity. This means that some eternal objects must be made available for ingression other than those given in the data of physical prehension. For the latter could only account for "conformity," whereas the subject is, as we have repeatedly said, a "novel" actual entity—that is it expresses the freedom of self-determination. This freedom entails two correlative aspects: negatively, it is a "freedom-from" and positively it is "freedom-for." By virtue of creativity the subject is a novel entity. It is other-than and thereby "free-from" (to the extent that it is able to be) the extrinsic deterministic factors that constitute its world. Yet the subject causes itself to be something definite, a limited actuality. Self-determination as an activity issuing in a positive perfection, as "freedom-for" or "freedom to-be something novel" is due to the ingression the eternal objects. Taken together, creativity and eternal objects are the ultimate intrinsic causal factors accounting for the freedom of self-determination.

Now whereas the physical pole is the source of conformity and reproduction, the mental pole is the source of novelty, for it is here, at the mental pole, that new eternal objects are introduced.

In The Function of Reason, Whitehead reiterates that every occasion of experience is dipolar and that in it mental experience is integrated with physical experience. He also reaffirms his insistence that mentality need

\[1\text{FR, p. 32.}\]
not include consciousness. Indeed, the lowest forms of mental experience is "blind urge towards a form of experience." In physical experience the forms function as determining factors, whereas in mental experience eternal objects relate the subject with real possibilities for novel actualization. The experience derived from the mental pole, what Whitehead here calls "mental experience," is "the organ of novelty, the urge beyond." As Whitehead puts it, mentality "seeks to vivify the massive physical fact which is repetitive, with the novelties which beckon." As we shall see in some detail in Chapter III, Whitehead will consequently distinguish the grades of actual entities on the basis of the degrees of mentality operative in the various phases of concrescences. Since no actual entity is completely determined, the extent of its freedom depends in part upon the degree of its mentality, and therefore Whitehead occasionally distinguishes between actual entities—and also nexus—on the basis of their degree of freedom.

With a moment's reflection, one realizes that the importance of the mental pole is its two-fold relatedness. In the initial phase of concrescence the mental pole is the proximate source of the conforming eternal objects, and in the subsequent phases the mental pole is a proximate source of the novel eternal objects:

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1Ibid. Also see for example, PR, pp. 245-46; 11th "Category of Explanation," pp. 35, 83-84, 245; 269-372; 406-28.

2FR, p. 32. 3Ibid. 4Ibid., p. 33.

5Ibid., pp. 31-34; AI, pp. 269-74; MT, pp. 230-31.

6See, for example, AI, pp. 332-33, 269-72; PR, pp. 174-76; FR, pp. 26-34; MT, pp. 28-57.
The bare character of mere responsive re-enactment constituting the original physical feeling in its first phase, is enriched in the second phase by the valuation accruing from integration with the conceptual correlate. In this way, the dipolar character of concrescent experience provides in the physical pole for the objective side of experience, derivative from an external actual world, and provides in the mental pole for the subjective conceptual valuations correlative to the physical feelings. The mental operations have a double office. They achieve, in the immediate subject, the subjective aim of that subject as to the satisfaction to be obtained from its own initial data. In this way the decision derived from the actual world, which is the efficient cause, is completed by the decision embodied in the subjective aim which is the final cause.

This "duality within the mental pole" therefore supplies an answer to our two questions. Initially, eternal objects come to inform and determine actual entities via the mental pole, where here in the initial phase the mental pole is seen as accounting for why the subject conforms to its datum—to the extent that it does conform. Subsequently, with later phases of concrescence novel eternal objects are introduced again at the mental pole, but now the degree and extent of novelty depends on the level (degree) of mentality and on complexity of concrescence of the particular actual entity.

Finally, we have noticed creativity's role in the physical prehension and now it is time to note its relationship to the mental pole and conceptual prehension: for (1) creativity is the activity grounding novelty and ultimately freedom as activity; (2) the mental pole by virtue of its relation to the eternal object is the actual entity's proximate "organ of novelty;' and finally, (3) novelty is always exercised within the context of at least the efficacy of past actual entities. It would seem to follow, then, that the

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1PR, p. 423. Italics added.

2See above, pp. 102ff.
mental pole plays an indispensable role of relating creativity with the determined definiteness of the past on the one hand with the novel definiteness of the present on the other. As Whitehead says,

Thus the mental pole is the link whereby the creativity is endowed with the double character of final causation, and efficient causation. The mental pole is constituted by the decisions in virtue of which matters of fact enter into the character of the creativity.¹

Before closing this section something needs to be said concerning the role of negative prehension in conceptual prehension. Conceptual prehension bears directly on negative prehension. In a conceptual prehension the relationship is not between two or more actual entities, but ultimately between an actual entity and eternal objects.

While eternal objects are the "forms of definiteness," they are, nevertheless, indeterminate in themselves. As "pure potentials," eternal objects are completely determined as regards their internal relation, but they are inefficacious or indetermined in regards to actuality.² Furthermore, according to the ontological principle, if eternal objects are considered in themselves, in complete abstraction from actual entities, we are left with nonentities.³

It follows that eternal objects do not have within themselves the principle which accounts for the interrelationship of actual entities. It is true that in physical ingression the eternal objects "express the formal constitution of the objectified actual entity" by acting as the relational

¹Ibid. Italics added.  
³PR, p. 392.
factor between prehended and prehender. "In this sense the solidarity of
the universe is based on the relational functioning or eternal objects." But as Eslick notes, "there is still a surd element of brute fact, of the fact
of interconnectedness which cannot be reduced to a set of eternal objects." Quoting A. E. Taylor's summary of the Timaeus, Whitehead makes Plato's posi-
tion his own:

But however far science may carry this procedure, it is always forced to
retain some element of brute fact, the merely given, in its account of
things. It is the presence in nature of this element of the given, this
surd or irrational as it has sometimes been called, which Timaeus appears
to be personifying in his language about necessity.

Creativity is this underlying unintelligible element which "accounts for" the
interrelationship lying at the very base of an actual entity's actuality.

Now the ingestion of eternal objects manifest in physical prehension
can only account for conformity—for why the present resembles the past. What
was subjective for one actual entity becomes objectively immortal in the pre-
hending novel entity. Yet physical prehension does not account for the fact
that process is the drive for novelty. That physical prehension is a reality
only points to a deeper character of the actual entity. Because actual en-
tities are not substances but rather exist as successive atomic drops of ac-
tuality driving from instant to instant toward novelty, they cannot, either
individually or collectively, exhaust the fullness of actuality. Neither de-
terminate past actuality nor creativity, either taken together or as indepen-
dent of everything else, can account for a novel actual entity. For to be is

1Ibid., p. 91. 2Ibid., p. 249; cf. also pp. 445-47.
to be something definite, something finite.

But **undetermined** creativity cannot bring **novel determination** (a new actual entity) into being from what is already given determinately. In addition to past actual entities and creativity there must be some real potentiality. Potentiality, both real and absolute, must be in order that novelty be. Thus while an actual entity may not be aware of the totality of pure possibilities, in order that process i.e. novelty be saved there must be awareness (this need not be conscious) of something other than the "merely given" of physical prehensions. Were no such awareness given, absolute satisfaction would be the result and the process would have come to its end. At the most "process" would be but mere repetition.¹

Therefore novelty does not lie primarily on the side of physical ingress, but on the side of conceptual ingress. The very coming into actuality of an actual entity is the result of a determination, a "choice." The "choice" involves **rejecting** various possibilities of actualization in favor of some one kind. It involves being this and not that. This very act of determination is located in the actual entity's "conceptual pole." "Conceptual feeling is the feeling of an unqualified negation; that is to say, it is the feeling of a definite eternal object with the definite extrusion of any particular realization."² It is there, in its conceptual feeling, that the actual entity facing the realm of potentialities moves itself into actuality by selecting, through negation, some "one" form of definiteness.

¹AI, pp. 333-34. ²PR, p. 161.
It is through the introduction by the mental pole of an actual entity of prehensions of the indeterminateness of eternal objects that there can be an 'influx of eternal objects into a novel determinateness of feeling which absorbs the actual world into a novel actuality.' (PR, p. 72) Creativity, therefore, conditioned by the settled facts of the actual world, and facing indeterminate possibility, brings to birth a new creature. Its primary instrument in creation is negation.1

3. Subjective Form, Subjective Aim, and God

It has been noted that the subjective form is how the emerging subject prehends its datum.2 Because the subject is determined by the datum in the manner of efficient causality, Whitehead’s discussion of the subjective form is in part a further specification of the manner and extent of this determination. In the initial phase of concrescence, regardless of whether we are discussing negative or positive prehension, the subjective form is necessarily determined by the datum precisely inasmuch as this form is the subject's "reaction to" that datum.3 But what is involved in "reacting to" determining datum? Whitehead says,


2A. H. Johnson observes that Whitehead is using two different, though clearly related, meanings of subjective form: (a) "attitude or emotional reaction. For example, he mentions adversion, and aversion, horror, anger, disgust, indignation, enjoyment, as instances of subjective form," and (b) those "numerous instances when obviously he is referring to the entire inner life of an actual entity, including subjective form in the sense of meaning 'a.' For instance he states that 'the individual immediacy of an occasion...is the final unity of subjective form, which is the occasion as an absolute reality.'" (Whitehead’s Theory of Reality, p. 33.) See PR, p. 355.

3"Thus an actual entity, on its subjective side, is nothing else than what the universe is for it, including its reactions. The reactions are the subjective forms of the feelings, elaborated into definiteness through stages of process." (PR, p. 234.)
The deterministic efficient causation is the inflow of the actual world in its own proper character of its own feelings, with their own intensive strength, felt and re-enacted by the novel concrescent subject. But this re-enactment has a mere character of conformation to pattern.¹

Commenting on this passage, Christian says that the "subject 'reproduces' the objective datum by producing a feeling of the datum with a conformal subjective form."² With the concrescing subject there emerges a subjective form which conforms to or reproduces the datum. But as Christian asks, "What is conformed to?" Leclerc is in substantial agreement with Christian's conclusion that "What the subjective form of the present feeling conforms to, then, is the subjective form of the objective datum."³ That is to say, though certainly not numerically identical, in some important sense the subjective form of the objective datum is the same as that of the concrescing subject.⁴ Furthermore, Whitehead explains "conformity" in terms of the eternal objects, since it is eternal objects functioning relationally between cause and effect that ground the very meaning of "conformity." More precisely, eternal objects inform the concrescing subject via its substantial form which is now viewed as the manner in which or the how this subject reacts to these eternal objects. That is, to the extent that there is conformity between objective data and the subject, this is due to the mediation of the same eternal object in

¹PR, p. 374. Cf. also the following passages noted by William Christian in his An Interpretation, p. 143, n. 1: SHW, pp. 147, 186, 212; PR, pp. 196, 202-08, 234-35, 375, 380; AI, pp. 248-49.

²An Interpretation, p. 143.


⁴Christian, An Interpretation, pp. 135-36.
the subjective forms of both.¹

This, however, raises a question that takes us to the heart of this
discussion concerning freedom. Why isn't conformity complete? In terms of
the discussion of the subjective form, what accounts for the subject's not be-
ing completely determined by the datum? First, no actual occasion positively
prehends all other actual entities of the immediate past, nor does it prehend
its contemporaries. Moreover, even physical prehension involves negation.
Thus some data of the felt past are eliminated from causal efficacy—though
not from importance. Again, the form of the negative prehension contributes
to the final unity of the subjective form.

Second, it is true that in the relationship of efficient causality
the subjective form is a feeling of the datum, and therefore this form is
determined to conform—at least initially—by necessarily being the feeling
of that datum and not some other. Nevertheless, inasmuch as it is the feeling
of this subject it is a novel feeling, and therefore cannot be simply identi-
fied even formally with the datum. For the subjective form is how this novel
subject prehends, i.e., "feels," its datum. Remove the subject's contribution
in positive physical prehension, that is, its novel reaction to the subjective
form of the datum, and you are left with mere eternal objects.² Quite the con-
trary is the case: since the actual entity is its prehensions, since the sub-

¹On this point then, and working from a different perspective, our
conclusion agrees basically with the more detailed study of Christian. See
his An Interpretation, pp. 130-44.

²PR, p. 354.
jective form is how the actual entityprehends its datum, and finally, since an actual entity is a novel entity, it appears that the very novelty of the actual entity must be manifest within the subjective form even in the initial or "conformal" phase of concrescence. This interpretation certainly seems to be in keeping with Whitehead's contention that

The essential novelty of a feeling attaches to its subjective form. The initial data, and even the nexus which is the objective datum, may have served other feelings with other subjects. But the subjective form is the immediate novelty; it is how that subject is feeling that objective datum. There is no tearing this subjective form from the novelty of this concrescence.\(^1\)

Moreover, remarking on the general description of a feeling Whitehead says,

A feeling is a component in concrescence of a novel actual entity. The feeling is always novel in reference to its data; since its subjective form, though it must always have reproductive reference to the data, is not wholly determined by them.\(^2\)

Even in the case of simple causal efficacy, then, the subject is not completely determined by the datum's subjective form, since the subject is, after all, a being whose very being is to be a causa sui.

This brings us to the third aspect of our answer, that concerning the freedom of the subjective aim. In subsequent phases of concrescence, additional eternal objects are prehended, either negatively or positively, and consequently additional subjective forms must be integrated into the final unity of satisfaction which is the completed subject:

\(^1\)Ibid.  
\(^2\)Ibid., p. 355.
The process of concrescence is a progressive integration of feelings controlled by their subjective forms. In this synthesis feelings of an earlier phase sink into the components of some more complex feeling of a later phase. Thus each phase adds its element of novelty until the final phase in which the one complex 'satisfaction' is reached.  

It follows that an actual entity is not completely determined by its past world for the additional reason that although initially emergent from this world, though causally determined by it, additional novel forms of definiteness are offered to the subject by God at subsequent phases of its concrescence. And in a sense to be examined presently, the subject is no longer dependent on the past actual entities for these novel eternal objects.

The fourth reason why the subjective form is not completely determined by the datum is to be found in the relationship between the subjective form and the subjective aim. Stated generally, the subject's subjective aim is ontologically prior to all the phases of concrescence in the sense that every act of prehension, beginning with the initial phase and ending in satisfaction, is causally determined by the subject's subjective aim:

A reference to the complete actuality is required to give the reason why such a prehension is what it is in respect to its subjective form. This subjective form is determined by the subjective aim at further integration, so as to obtain the 'satisfaction' of the completed subject.

The subjective aim determines in the manner of a final cause:

1Ibid., also see Al, pp. 324-27. Cf. PR, pp. 378-90, 161-62.

2There is a relationship between "the subjective form of a prehension and the spontaneity involved in the subjective aim of the prehending occasion." (Al, p. 325.)

3PR, p. 342.

4Ibid., p. 29; also see pp. 355-56.
The world is self creative....In its self-creation the actual entity is guided by its ideal of itself as individual satisfaction and as transcendent creator. The enjoyment of this ideal is the 'subjective aim,' by reason of which the actual entity is a determinate process.  

As the intrinsic final cause, the subjective aim functions as a guide or lure for the process of concrescence. The subjective aim represents, then, that within the subject which is the reason why the subject has the subjective forms that it does. It is the reason for how the subject apprehends its datum. Thus whereas the past actual entities constitute determining efficient causes, the subjective aim constitutes the element of freedom in the order of final cause of concrescence. As Whitehead says,

The 'objectifications' of the actual entities in the actual world, relative to a definite actual entity, constitute the efficient causes out of which that actual entity arises; the 'subjective aim' at 'satisfaction' constitutes the final cause, or lure, whereby there is determinate concrescence; and that attained 'satisfaction' remains as an element in the content of creative purpose.  

An actual entity is one being constituted by the synthesis of subjective forms in its process of concrescence. Inasmuch as the subjective forms expressive of this final unity termed "satisfaction" originate in the subjective aim, this aim may also be viewed as the unifying factor of the actual entity. Whitehead says,

This process of the synthesis of subjective forms derived conformally is not settled by the antecedent fact of the data. For these data in their own separate natures do not carry any regulative principle for their synthesis. The regulative principle is derived from the novel unity which is imposed on them by the novel creature in process of constitution. Thus the immediate occasion from the spontaneity of its own essence must supply the missing determination for the synthesis of subjective form. Thus the

1Ibid., p. 130.  
2Ibid., p. 134.
future of the Universe, though conditioned by the immanence of its past, awaits for its complete determination the spontaneity of the novel individual occasions as in their season they come into being.\footnote{A1, p. 134. Also see PR for the formal explanation of the 1st "Categorical Obligation" ("The Category of Subjective Unity"), p. 39; also pp. 227-28, 322, 343, 470.}

It is now possible to remove an apparent paradox found in Whitehead's statement of the "Category of Freedom and Determinism," namely, that the concrescence of each individual actual entity is "internally determined and externally free." To be sure, Whitehead maintains that the antecedent world functions to determine the subject in the order of efficient causality and that the subject is free in the order of final causality. In these terms, the subject is \textit{externally determined and internally free}. Yet, precisely because it is internally free Whitehead can say that the subject is internally determined and externally free, which is to say that Whitehead uses the terms freedom and determinism in different but related ways: (1) as \textit{causa sui}, the subject determines itself—or, is internally determined; and (2) is \textit{not completely determined} by its antecedent world—or, is to that extent indetermined or externally free of these data.

We can now note the \textit{fifth} and final reason why the subject's subjective form is not completely determined by the datum. The initial phase of the subjective aim "is an endowment which the subject inherits from the inevitable orderings of things, conceptually realized in the nature of God."\footnote{PR, p. 373.} Though giving the subjective aim and thus initially limiting the freedom of the actual entity, Whitehead maintains that God does not completely determine the concres-
actual entity; for although the initial stage of the subjective aim is rooted in the nature of God, "its completion depends on the self-causation of the subject-superject."¹ From this it follows that each actual (temporal) entity "derives its basic conceptual aim, relevant to its actual world, yet with indeterminations awaiting its own decisions."²

There appears to be two basic reasons why God cannot completely determine an actual entity. (1) God is present to existing actual entities as a lure for feeling inasmuch as he provides the initial phase of the subjective aim.³ That is to say, as an object of love God exercises extrinsic final causality, and according to Whitehead this can never completely remove the subject's freedom.⁴ (2) From the side of the actual entity the ultimate reason

¹Ibid., Also see pp. 343-75. ²Ibid., p. 343.

³Previously it was noted that since according to the ontological principle the general potentiality of the universe must be somewhere, this somewhere is "within the non-temporal actual entity" which Whitehead calls the primordial nature of God. (PR, p. 73.) In His consequent nature God also functions to join the past objectively immortal actual entities with the present actuality. (PR, pp. 523-24.) "The consequent nature of God is his judgment on the world. He saves the world as it passes into the immediacy of his own life." (PR, p. 525.)


⁴See, for example, PR, pp. 519-23.
why Whitehead's God cannot completely determine is that the subject is a creature of creativity, and this is to be causa sui:

To be causa sui means that the process of concrescence is its own reason for the decision in respect to the qualitative clothing of feelings. It is finally responsible for the decision by which any lure for feeling is admitted to efficiency. The freedom inherent in the universe is constituted by this element of self-creation.¹

It seems that this entails that there can be some degree of a negative prehension of the hybrid physical feeling of God.

In seeking the cause of the actual entity's indetermination we have thus come full circle. Creativity and eternal objects are the correlative principles accounting for novelty and freedom. But creativity is irrational in itself, and thus to seek for a reason for freedom is to ask for something more than creativity. Hence in one sense the "subjective aim" is the final reason one can give for the actual entity's being causa sui. As a consequence Whitehead says that this aim is both an example and limitation of the ontological principle.² Nevertheless, in another and most important sense creativity is the ultimate "explanation" accounting for freedom as novelty, that is as "different" or "otherness."

Because of the "nature" of creativity, Whitehead's God, unlike the Christian God of the metaphysics of Aquinas, cannot completely determine the actual entity in the order of final causality. More like Aristotle's primary

¹Ibid., p. 135. ²Ibid., p. 373. ³ST, I, 82, esp. 1c and 2c; I-II, 2 a11; I-II, 10, 2 a11; De Veritate, XXII, 6 a11 and 8 a11.
mover who moves in the manner of a final cause and Plato's divine element in the world conceived a persuasive agency, Whitehead's God is conceived as the divine element in the world moving it toward completion and perfection as an object of desire, persuading but never compelling. Moreover, since he does not exercise creative efficacy properly so called, as does the God of St. Thomas Aquinas and the medieval theologians, Whitehead's God operates within the general conditions placed upon him by the creativity, and in this, again, we have an analogue in Plato's Demiourgos.

The eternal objects are offered by God as lures drawing actual entities toward ideal perfection, but these forms cannot completely determine —i.e., remove the freedom of—the actual entity because the creature is also constituted by creativity. Now creativity is the principle of novelty functioning to constitute correlative the being of actual entities. Therefore however much the eternal objects lure and even when they are accepted for ingestion, yes, even when the form of the initial phase of the subjective aim is determined by God, these objects never completely determine the actual entity. An actual entity is a creature of creativity and thus it is free to determine itself its manner of existence: it is causa sui.

Therefore Whitehead is being consistent with the principles of his

1PR, pp. 522-23. 2AI, pp. 213-19; 105; 188-89.

system when he speaks of the initial situation of an actual entity in terms of (a) God, (b) the actual world, and (c) creativity.

If we prefer the phraseology, we can say that God and the actual world jointly constitute the character of creativity for the initial phase of the novel concrescence. The subject, thus constituted, is the autonomous master of its own concrescence into subject-superject.

4. Creativity: Summary

Creativity has been discussed throughout the chapter, and therefore we will but summarize our findings. Whitehead maintains that creativity is one of the notions presupposed in all the more special categories of his "Categorial Scheme," by this he means, among other things, that all the more special discussions would ultimately lead, if pushed far enough, to an analysis of this principle of creative advance operative in the world. Because creativity is a correlative principle, this analysis also leads to the role played by eternal objects and God. The second part of this chapter was addressed to isolating and summarily stating various causal factors directly accounting for the determination and freedom of actual occasions in terms of these formative elements.

An actual occasion was seen to be constituted in its very being—or becoming—as the product of the ingressive of eternal objects in creativity arising from the efficacy of past actual entities and through the mediation of God. When this is stated precisely and in terms of a causal analysis, eternal objects, creativity, past actual occasions, and God were seen to func-

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1PR, p. 374.  
2Ibid., p. 31.
tion as formal, material, efficient, and final causes respectively. To be sure, Whitehead has changed the meaning of these terms in important ways; so we observed that the material cause is purely active though informable, while his formal determining principles are wholly potential; also, the efficient cause "exists in the past" and the effect "is in the present," and not even God can completely determine the world's process in the order of extrinsic final causality.

An actual occasion is causa sui, and to this extent it freely determines its own process of concrescence. The mental pole is the subject's intrinsic source of self-determination. In virtue of its mental activity the subject determines for itself how it will realize the possibilities offered to it by the past world and by God. That is to say, self-determination entails self-causation in the order of intrinsic final causality.

There is a negative and positive aspect of the freedom of self determination, both grounded in one of the correlative principles and together explaining this free act taken as a whole: creativity is the ultimate intrinsic principle accounting for novelty as otherness, i.e. for freedom--from the determinism of (1) the efficient causality of the past and (2) the final causality of God's lure; whereas eternal objects account for the definite form that novelty takes, i.e. for freedom--to become a specific or limited kind of novel actuality.

Christian asks "How can the subjective form of the initial aim be conditioned by the subject when no prior unity of the subject exists?" and "How can the subject affect the subjective form of that feeling which is itself
Perhaps an answer can be worked out along the following lines. Even though God is the cause of the initial phase of the subjective aim, nevertheless this aim as received in the coming-to-be of the subject is received according to the conditions imposed by creativity. Now if creativity is "conceived" as a principle "determining" by radical negation and otherness, can we not say that the very condition of receiving an initial subjective aim from God requires that in virtue of its creativity the subject necessarily modifies this aim? The initial subjective aim of this subject is consequently other than, different from, that aim as envisioned by God. If we be permitted a metaphor, creativity leaves everything it touches changed by the experience. So much is creativity a principle that rejects determination, that no sooner does the actual entity come to be completed than it begins to function as potentiality for future occasions. Its birth is its death. This is one important aspect of the ultimate explanation for the entity's being called a subject-superject, of its being one individual among and for others. In virtue of its creativity, there is an existential tendency built into the subject to be an-other (as subject) and to be for another (as superject).

This chapter has attempted to outline the metaphysical basis of freedom in Whitehead's philosophy. We have seen that freedom is exercised by actual entities. These entities are the ultimate realities in terms of which everything else is explained. But what of man? Can Whitehead's metaphysical an-

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1 An Interpretation, p. 313.
analysis withstand the conditions placed upon it that were noted at the end of Chapter I? Has Whitehead laid the grounds for explaining or explaining away human freedom? In order to answer this question we must pass to the macroscopic level of analysis; we must determine precisely what a man is and how he exercises his mode of freedom. This is to be the subject of the following chapters.
CHAPTER III

THE MACRO COSMIC UNIVERSE: FREEDOM REAFFIRMED

Having considered the question of the metaphysical basis of freedom, and having observed that it lies in the very being of individual actual entities, we must now consider the other half of Whitehead's metaphysical analysis: the macrocosmic analysis.¹ For none of the beings of our direct experience such as stones, trees, and men are individual actual entities. On the contrary, these events are composites "built-up" from individual actual entities. Whitehead calls these entities nexus and/or societies. Any freedom on the macrocosmic level must similarly be "built-up" from the freedom of individual actual entities.

In this chapter we will attempt to determine the manner of reality manifested by macrocosmic entities. Here we are ultimately concerned with discovering man's place in the hierarchy of macroscopic organisms. First, the nature of macroscopic entities will be briefly examined. Second, the classi-

¹Whitehead sometimes refers to the macroscopic and microscopic orders rather than the macrocosmic and microcosmic, but it is clear that he uses these terms interchangeably, and therefore we have used both forms.
fication of actual entities will be established as the ground for classifying
macrocosmic entities. Finally, Whitehead's actual classification of nexus
will be examined in order to establish man's exact place in the macrocosmic
scheme.

A. The Macrocosmic Universe of Nexus

1. The Immanence of Actual Occasions

Though Whitehead enumerates "eight categories of existence," he is
quick to point out that of these "actual entities and eternal objects stand out
with a certain extreme finality."¹ The idea is expanded somewhat by the 19th
"Category of Explanation" which states

That the fundamental types of entities are actual entities, and
eternal objects and that the other types of entities only express how
all entities of the two fundamental types are in community with each
other, in the actual world.²

These statements do not contradict Whitehead's assertions that the res verae
are actual entities (or actual occasions), for although eternal objects are
entities, they are of themselves "pure potentials" and as such are devoid of
actuality. Moreover, Whitehead is consistent in not listing creativity among
these ultimate "entities"—though he has listed it as a "formative principle"
—for creativity is his ultimate principle of act, of actuality and activity,
and is not a principle of potentiality. For as we have seen, the definition
of "entity" is "potentiality for process."³ Also, creativity is not listed

¹PR, p. 33; also see MT, pp. 95-97, "Immortality," ⁶ VI Philosophy of
²PR, p. 37.
³Ibid., p. 68; cf. SCM, p. 255.
among the "Categories of Existence." I.e. Whitehead's creativity is ultimate in the sense of being his ultimate principle of being as activity.

Among the other "proper entities"—i.e. excluding "multiplicities"—Whitehead lists the important 3rd "Category of Existence": "Nexus (plural of Nexus), or Public Matters of Fact."¹ He proceeds to explain that "a nexus is a set of actual entities in the unity of each other, or—what is the same thing conversely expressed—constituted by their objectification in each other."²

In Chapter II, we observed that an actual entity is "objectified" in being "prehended" by a concrescing subject. Connecting the doctrine of nexus with the technical terms "objectification" and "prehension," Whitehead coherently grounds the very being of a nexus in this real concrete relationship between actual entities—as indeed he must, given the ontological principle:

Actual entities involve each other by reason of their prehension of each other. There are thus real individual facts of togetherness of actual entities, which are real, individual, and particular, in the same sense in which actual entities and prehensions are real, individual, and particular. Any such particular fact of togetherness among actual entities is called a 'nexus' (plural form is written 'nexus').³

It follows that although the res verae are actual entities existing individually and possessing self identity, nevertheless each actual entity is really related to other actual entities inasmuch as each is constituted by its prehensions. This is merely an application of the principle of relativity⁴ and expresses the general idea that actual entities are mutually immanent. Their

¹¹PR, p. 32; cf. AI, pp. 254, 258.
²²PR, p. 35, 14th "Category of Explanation." ³³PR, pp. 29-30.
⁴⁴For example, see PR, pp. 33, 79-80.
Immanence is constitutive of a real unity. Whitehead calls this unity a nexus.

2. First Division of Nexus Based on the Kinds of Immanence

In the Adventures of Ideas, Whitehead enumerates three kinds of immanence evidenced in our cosmic epoch. The immanence of the past in the present, the present in the present, and the future in the present. The immanence of the past in the present is the "direct immanence" of causal efficacy. Here, the past actual occasion is immanent as object for the concrescing subject: "This individual objective existence of the actual occasions of the past, each functioning in each present occasion, constitutes the causal relationship which is efficient causation." Stated in the terminology of "relations," the past actual occasion is internally related to the present actual occasion. The price of "direct immanence" is the objective immortality of the past.

The future is also immanent in the present as an object for the subject, but its objective existence differs from that whereby the past is object. Ob-

1MT, p. 225. 2AI, p. 259.
3For example, see AI, p. 246. Cf. SMW, pp. 105-08. 4AI, p. 251.
viously the future actual occasions cannot exercise causal efficacy, for as future they have not yet existed. Consequently they are not objects in the manner of exercising objective immortality. Rather, as Whitehead says, what is objective in the present is the necessity of a future of actual occasions, and the necessity that these future occasions conform to the condition inherent in the essence of the present occasion. The future belongs to the essence of the present fact, and has no actuality other than the actuality of the present. But its particular relationships to the present fact are already realized in the nature of present fact.

There are two ways of understanding this passage. (1) The future is immanent in the present in the sense that it is determined by the present. (2) The future is immanent in the present by determining the present. Obviously we have here two divergent senses of "to determine." Number (1) says that the present will become objectified in the future, which is to apply the doctrine of causal efficacy to the present subject and to view the subject as datum for future subjects. This is the proper or formal meaning of "to determine" in Whitehead's philosophy. Viewed in this way, the subject will causally determine the future when, in (or with) the future, it attains objective immortality. But it will determine the future inasmuch as the subject is what it is at the present. To this extent the present is pregnant with the future. In other words, the present is being regarded as a real potentiality for the future.

Whereas (1) states the doctrine of efficient causality, (2) expresses the role of final causality. Here Whitehead wishes to make the point that although the end of an actual occasion resides in its final phase of satis-

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1AI, p. 247  
2Ibid., p. 251.
faction whereby it exists completed, definite, fully actual, and fully individual, yet it belongs to the essence of the subject "that it passes into objective immortality." This is to say that objective immortality is the other aspect of a subject's essence; an actual occasion is a being whose very being also involves being-for-another: "Thus its own constitution involves that its own activity in self-formation passes into its activity of other-formation." 1

This sense of being-for-another receives its systematic expression as the 8th "Categorial Obligation," the "Category of Subjective Intensity." This category expresses the two-sidedness of the subjective aim and therefore of the subject:

The subjective aim, whereby there is origination of conceptual feeling, is at intensity of feeling (β) in the immediate subject, and (θ) in the relevant future.

This double aim—at the immediate present and the relevant future—is less divided than appears on the surface. For the determination of the relevant future, and the anticipatory feeling respecting provision for its grade of intensity, are elements affecting the immediate complex of feeling. The greater part of morality hinges on the determination of relevance in the future. The relevant future consists of those elements in the anticipated future which are felt with effective intensity by the present subject by reason of the real potentiality for them to be derived from itself. 2

The subjective aim which is the unifying goal drawing on the concreting subject is at once directed to the subject as subject, i.e. as actual, in the present as well as to the subject as object, i.e. as potential in the future. 3 When you emphasize this latter aspect of the subject the importance

1Ibid., p. 248; cf. PR, p. 34, 8th "Category of Explanation." See Christian, An Interpretation, pp. 21-38 for a detailed analysis of the relationship between "satisfaction" and "objectification."

of the future functioning as a lure and a real element in the present becomes apparent. Future possibilities are relevant data for the present. As we shall see, in the case of high grade actual entities conscious awareness of the future as future will be an essential element in distinguishing their higher kind of freedom and the moral responsibility this entails. It is along these lines that Whitehead wishes to explain the persistent deliveries of common sense witnessing to the fact that the future is something for the present.

Legal contracts, social understandings of every type ambitions, anxieties, railway timetables, are futile gestures of consciousness apart from the fact that the present bears in its own realized constitution relationships to the future. Cut away the future and the present collapses, emptied of its proper content.

The immanence of the present in the present is of the "indirect" sort of immanence, like that of the future in the present. Here, however, the indirect immanence is that which maintains between "contemporary" actual entities. Now contemporaries are so related that neither belongs to the past of the other, and therefore they "are not in any direct relation of efficient causation."

Foregoing Whitehead's more technical analysis, his position can

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1Ibid., pp. 128-34.


3Al, p. 247.

4Ibid., p. 246.

5Al, p. 251; S, p. 25. Cf. FR, pp. 95-96; 188: "This is in fact the definition of contemporaneousness...namely, that actual occasions, A and B, are mutually contemporary, when A does not contribute to the datum for B, and B does not contribute to the datum for A, except that both A and B are atomic regions in the potential scheme of spatial-temporal extensiveness which is a datum for both A and B." Finally, see Whitehead's article entitled "Time," Proceedings of the Sixth International Congress of Philosophy (Held at Harvard
be stated very generally. The mutual immanence of contemporary actual entities lies in this fact, namely, that their immanence is mediated inasmuch as it is exercised through a common past and a common future:

The occasions originate from a common past and their objective immortality operates within a common future. Thus indirectly, via the immanence of the past and the immanence of the future, the occasions are connected. But the immediate activity of self-creation is separate and private, so far as contemporaries are concerned.¹

But what has all of this to do with Whitehead's discussion of nexus? Simply that a nexus derives its being from the mutual immanence of its component actual entities. Therefore the more fundamental or direct immanence of the past in the present constitutes one kind of nexus, namely, a temporal nexus whose members form a strand of actual occasions causally (efficient causality) related and therefore temporally (serially—linearly) spread.

The indirect immanence of the present in the present constitutes


⁶Again the reader is referred to Christian's detailed analysis of "immanence": An Interpretation, pp. 50-76 and all of Chapter vi, pp. 119-29.

¹AI, p. 252, see all of Chapter xi, pp. 246-57; also see pp. 277-82. Whitehead also speaks of the "objectification" of contemporaries. "Mutual immanence" implies that each actual occasion be considered both "formally" and "objectively": formally in its being-for-itself, objectively in its being-for-another. The objectification of the present in the present is, like that of the future in the present, significantly different from the objectification of the past in the present. Whitehead notes this when comparing the two modes of perception. Whereas the objectification of the past in the present is the primary meaning of objectification (PR, pp. 34, 72) and occurs in perception in the mode of causal efficacy, contemporaries are objectified when perceived in the mode of presentational immediacy (S, p. 25; cf. FR, pp. 91-92).
another kind of nexus. The actual occasions constituting this nexus are causally independent and therefore they are not temporally spread. Indeed, the idea of contemporaries, as common sense attests, is that of entities existing at the same time or "simultaneously." Here then is another kind of possible nexus, one that is spread spatially at any given instant of time. Whereas a spatial nexus is spread in three dimensions and a temporal nexus is spread in another dimension, the nexus of our immediate experience such as stones, trees, and men are more complex for they are spread both spatially and temporally, which is to say that they are four dimensional. On the other hand, such spatially spread nexus do depend in some important sense on temporal order, i.e. they are also in fact a member of a temporally spread nexus.

Finally, what of that other type of indirect immanence? What kind of nexus is formed by the immanence of the future in the present? There are two ways in which the future can be said to be immanent in the present. One is in the manner of efficient causality whereby the future is said to be in the present by being determined by the present. Now this is but a reversion to the two previous kinds of immanence, since on this level the question is one of determining how the past influences the present. Here there are but two possibilities: (a) the direct mode of immanence, i.e. causal efficacy and (b) the mediated or indirect mode of immanence, i.e. causal independence—and here we are really speaking of contemporaries. Therefore it is a reversion of the two previously mentioned nexus.

On the other hand, the future is immanent in the present as a final cause. From this perspective the question is how the future can causally affect the present. Because the future does not yet exist actually, the present actual occasions cannot form actual, existential, concrete, particular bonds of togetherness with future occasions. Precisely because nexus are just such bonds, there are no nexus formed from this mode of indirect immanence. At best such nexus would be possibilities—though real possibilities, to be sure. Just as actual entities are real possibilities for the future, so also as derivatives from actual entities, nexus similarly can be spoken of as future. Now future actual entities are only possible in the present, and hence nexus can be similarly understood. Nexus are and can be known as future and therefore as immanent, but their being and their status as objects of knowledge is that of real possibilities of togetherness.¹

B. A Further Division of Nexus Based on a Classification of Actual Occasions

This summary presented what could be called Whitehead's general analysis and division of nexus.² It states the most general characteristics to be found in the nexus of our present cosmic epoch.³ These nexus fall into three main divisions: the purely temporal, the purely spatial, and the inte-

¹For example, see PR, pp. 350-53. ²AI, p. 260. ³See Sherburne's comments in A Key, pp. 80-81. Sherburne calls attention to the fact that the society of pure extension admits of many more possibilities than those actualized in our own cosmic epoch, as, for example, 5, 6, etc. dimensionality.
grated temporal-spatial type. An additional classification is needed, one which would be a subdivision of the previous groups. Nowhere in this discussion have we found anything that would enable us to account for different kinds of temporal, or spatial, or temporal-spatial nexus such as electrons, molecules, living cells, animals, and so forth. Principles of specification are clearly in order. As an introduction to this discussion, it is well at least to note the derivative mode of existence attributed to nexus by Whitehead. Though merely introduced at this point, the notion of "derivative existence" will help introduce the principle by which Whitehead further distinguishes the hierarchy of nexus.

1. The Derivative Status of Nexus Noted

Since a nexus expresses any real, individual, particular fact of togetherness among actual entities, it follows that all of the ultimate facts of immediate actual experience are "actual entities, prehensions, and nexus," and that everything else "is, for our experience, derivative abstraction."\(^1\) On the other hand, actual entities "stand out with a certain extreme finality." Given the ontological principle, the res verae are complete, individual, concrete, existing actual entities, and therefore everything else should be in the end, a derivative abstraction from actual entities. In point of fact Whitehead does say that "the actual world is built up of actual occasions; and by the ontological principle whatever things there are in any sense of 'existence' are derived by abstraction from actual occasions."\(^2\) This is a strong statement.

\(^1\)PR, p. 30; see p. 27. \(^2\)Ibid., p. 113.
In one sense it means that actual entities are more fully real than nexus, since the latter are meant to express but the unity maintaining between actual entities. Leclerc states the matter precisely:

Whitehead acknowledges that for most everyday purposes the things with which we are concerned are legitimately and correctly conceived as self-identically enduring entities: 'the simple notion of an enduring substance sustaining persistent qualities, either essentially or accidentally, express a useful abstract for many purposes of life.' [*PR, p. 122/]

But it is the concept of an 'abstraction' and not of a concrete actuality. That is to say, though they are 'entities', they are not actual entities; though they do exist, their 'existence' is not the 'full' existence of actual entities, but is existence of a 'derivative' kind. In saying that they are 'abstractions' Whitehead means that their existence is of a kind derivative from that of actual entities.

Chapter VI will examine what appears to this writer to be some of the difficulties inherent in Whitehead's conception of nexus as derivative existents. For the moment we are concerned with the question of the principle to be used in determining the hierarchy of nexus. Inasmuch as nexus derive their being from the relationships of actual occasions, we will have to return briefly to the microscopic level. For, the basic principle operating here is that actual occasions are graded into "kinds," and that they are thereby the "reasons" why nexus can be so graded.

2. Classification of Actual Entities

What does it mean to say that actual entities are graded into "kinds"? There can be a multiplicity of two or more "whatevers" only if "they" differ in some respect. Indeed, at the very beginning there appears to be two unavoidable paths to radical monism. "Two things" that are really identical

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¹Whitehead's Metaphysics, p. 63.
from every respect are not really two at all. They are really one and the same. That is, they can neither be nor be thought of as two. On the other hand, "two things" that are really in no way whatsoever alike cannot both be, nor can they both be thought of. For differing in all things whatsoever, whatever is said of either must be denied of the other, even that both of them are. For if one be, the other can only not-be, and if one be the object of thought the other can only be the object of ignorance, which is not to be an object at all.

The primary instance of "two things" being in no way whatsoever alike has its logical and metaphysical expression in the contradictory terms "being" and "non-being", where the former may be conceived as (absolute) being and all else as (absolute-ly) non-being. The ancient proponent of such a conception was, of course, the formidable Parmenides. Now multiplicity implies difference, and therefore two things can really differ—i.e. really "be" and be "two"—only if they are both similar and dissimilar. The history of philosophy can be read as a narrative of the attempts to make some sense of the similarities and differences manifest between things. The classification of actual entities—and nexus—that follows is our interpretation of Whitehead's contribution to this long history.

a) An Interpretation of Whitehead's Position

The world is made up of a multiplicity of actual entities. Multiplicity implies difference and therefore Whitehead writes that these actual entities "differ among themselves: God is an actual entity, and so is the
most trivial puff of existence in far-off empty space." But how do they differ? Ideally it would be hoped that there is but one genus of actual entities, so that though different, all actual entities would exemplify identical metaphysical principles. Even in the extreme case, namely that concerning God, it would turn out that he would "not be treated as an exception to all metaphysical principles, invoked to save their collapse." All actual entities, God included, would consequently be similar inasmuch as they exemplify the same metaphysical principles, though they would differ in the manner in which, i.e., the degree to which, these would be manifest in each.

(1) God and Actual Occasions

Though the ideal, Whitehead is lead, in our opinion, to conclude that there is a real difference in kind—and not merely a "distinction of reason" between at least God and temporal actual entities (i.e. actual occasions):

The presumption that there is only one genus of actual entities constitutes an ideal of cosmological theory to which the philosophy of organism endeavours to conform. The description of the generic character of actual entity should include God, as well as the lowest actual occasion, though there is a specific difference between the nature of God and that of any occasion.

Our concern is not primarily with the question of how God differs

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1PR, p. 28.  
2Ibid., pp. 168, 28.  
3Ibid., p. 521; also see AI, pp. 215-21.  
4PR, p. 521.  
from other actual entities. It should be noted, however, that we interpret Whitehead to mean that God is fundamentally unlike temporal actual entities, even though Whitehead writes that He is similar to them in many important ways. For example, He too is a creature of creativity, He too is dipolar, etc. Nevertheless, an indication of the extreme difference between God and actual occasions is seen in the fact that God is required to be operative in the process of concrescence of every actual occasion, whereas no actual occasion is immediately involved in the concrescence of every other actual occasion—past, present, and future. More specifically, God appears to be the only actual entity of his kind for at least the following reasons: (1) only God in his primordial nature originates with his timeless prehension and valuation of the whole realm of eternal objects;¹ (2) only in His consequent nature does the world become "everlasting immortal";² (3) only God is superject without having to pay the price of objective immortality;³ (4) God is the only non-temporal actual entity;⁴ (5) God is the absolute standard of subjective intensity which allows of no comparisons of more or less;⁵ (6) God alone supplies the initial phase of the concrescing actual occasion's subjective aim;⁶ (7) God alone is the "aboriginal instance of creativity, and is therefore the aboriginal condition which qualifies its action."⁷ The upshot of these differences—especially (3)—is that some interpreters argue that God ought not to be

¹Ibid., pp. 46, 73. ²PR, p. 427. ³Ibid., p. 532. ⁴Ibid., pp. 135, 119. ⁵Ibid., p. 75 ⁶Ibid., pp. 343, 373-74, 522. ⁷Ibid., p. 344.
regarded as an actual entity at all but rather as a "society" of actual entities.¹

(2) Actual Occasions Among Themselves

With the exception of God, and this is admittedly a very important exception, Whitehead intends to maintain the metaphysical ideal, namely, that all actual occasions should exemplify identical metaphysical principles. The metaphysical analysis of actual occasions in terms of their generic similarities and differences would therefore uncover those principles, characteristics, activities, etc. which are manifested by every actual occasion.

The analysis of the res verae given in Chapter II of this work was in part an attempt to elucidate the generic traits manifested by every actual occasion with emphasis placed on the roles of creativity and eternal objects in the production of novelty and free activity. It was seen that every actual occasion is constituted by the formative principles of creativity and eternal objects operating under the agency of God—and the efficient determination of past actual occasions. Every actual occasion is bipolar. Every actual occasion emerges as a concrescence of prehensions. Every process of concrescence is guided by the subjective aim and is analyzable into various phases whose end is the final satisfaction and decision of the actual occasion.

On the other hand, there are a multiplicity of actual occasions, and

therefore although actual occasions can be viewed as manifesting the same
metaphysical principles, Whitehead also contends that existentially they are
many. But their existential multiplicity is as much a part of their reality
as is the fact that they can be "thought of" as "really" manifesting similar
generic structures. The generic description must also elucidate the prin-
ciple(s) in terms of which existential individuation and differentiation are
to be explained. There is a question of accounting for the uniqueness of
actual entities that manifest genetically similar structures, activities, and
actuality.

In summary, an actual occasion is unique in virtue of the following:

(1) Its data is unique. No two subjects have identical pasts. It follows
that the efficient causality of the past determines each subject to be dif-
ferent.¹

(2) Its subjective forms are unique. As was observed in Chapter II, the
subject form is "how" this actual occasion prehends its data.²

(3) Its subjective aim is unique. Whereas the uniqueness of (1) has an ex-
trinsic source in the objective data, that of (2) is ground also in an inter-
nal source, namely, the subjective aim. But no two subjects have identical
subjective aims. Perhaps the importance of (3) can be grasped when it is re-
called that the same eternal objects can ingress in many actual occasions.
Now two actual occasions cannot be differentiated if one considers only the
eternal objects "involved" in each, that is, if one considers them apart from
the actual ingresson. For, eternal objects are not of themselves determined
to ingress in "this" or "that" actual occasion. An analysis restricted to the
realm of eternal objects will yield only other eternal objects; it is an an-
alysis of possibility, not of actuality. What must be explained is how "these"
eternal objects come to be uniquely mingled in "this" actual subject. On one
level the subjective aim is Whitehead's explanation. As Christian says,

Every actual occasion is a novel unity....In its experience it aims at a
unique possibility. This possibility is not a class or a species or a
genus. It is the ideal for that concrescence and determines how actual

¹PR, pp. 33-34; 321. ²Ibid., p. 354.
entities and eternal objects may mingle in its experience. That is to say the subjective aim of an occasion is a "form of composition" (MT 129). It defines a pattern, or mode of togetherness, relevant to the situation in which the concrescence arises. It defines how the concrescence may become concrete.1

(4) Its relationship to God is unique. This follows from (3) for God is the origin of the initial phase of the subjective aim.2

(5) The activity constituting its mental pole is unique. It is the proximate intrinsic source of the subject's creative energy.3

1An Interpretation, pp. 251-52. Johnson (Whitehead's Theory of Reality, pp. 34-36) and Richard Rorty ("Matter and Event," in The Concept of Matter, ed. by Ernan McCallin [Notre Dame, Indiana: University of Notre Dame Press, 1963]) offer similar interpretations. The latter says that the principle of individuation is the subjective aim as "defining a mode of togetherness of actual entities and eternal objects." (p. 506.)

In commenting upon Rorty's paper, V. C. Chappell observes that Rorty in fact seems to give additional and differing explanations for what accounts for the "individuality, particularity, and uniqueness of actual entities." Chappell himself thinks that the extensive continuum is the principle in terms of which individuality is to be explained (p. 527). On our interpretation this is untenable. For as was noted in Chapter II, the activity of the subjective aim is grounded in the activity of creativity. But the extensive continuum cannot be identified with creativity, nor can it be included within the meaning of creativity as Shahan attempted to show. (Whitehead's Theory of Experience, esp. pp. 5-6, 93-94, 114-18). For as Emmet (Whitehead's Philosophy of Organism, 2nd ed.; New York: St. Martin's Press, 1966, pp. 223-41.) Stokes ("Recent Interpretations,") and others have shown, and as Shahan himself also points out, creativity is totally formless activity whereas the extensive continuum is the most general scheme of real potentiality. Therefore since we interpret Whitehead as grounding the principle of existential individuation within creativity, we cannot then maintain that this is identical with what Whitehead variously describes as the extensive continuum.


2AI, p. 256.

3See Chapter II of this dissertation.
(6) **It is uniquely a creature of creativity.** As was noted in the previous chapter, creativity is the ultimate intrinsic source of the subject's being a novel individual; it is the principle accounting for the actual occasion being causa sui. It is that which accounts for the subjective aim being unique, for not even God can fully determine the subjective aim. Thus we must go farther than Christian and say that creativity is the more ultimate source of the subject's individuality and differentiation. Moreover, creativity individuates by negation. Existential individuation is negation. The actual occasion begins to be by being "other-than": other-than its past and other-than the Ideal received from God. This real relationship to "an-other" enters into the very constitution of its being. However all is not meant to be negation, for what comes to be is an-other synthesis: the many become one and are increased by one. Now to be one is to be a definite one, i.e. to be an informed something, and therefore though other, the actual occasion is none the less a determinate something—other.

(7) From (6) it follows that its formal constitution is unique.1

(8) **Its satisfaction is unique.** The goal of the subjective aim is the completion of the subject in the process of concrescence. This completion is called the "satisfaction" and is that moment or point at which the actual occasion has attained its individual separation from other things. Therefore it is self-evident that no two subjects can have identical satisfactions; in Whitehead's philosophy the very idea is contradictory.2

(9) **It is unique as a superject.** Each subject is also a superject and therefore each actual occasion comes to be a unique datum for future subjects.

(10) Finally, given (1-9)—and the discussion of the previous chapter—its free activity is a unique one. That is, its free activity of self-causation is not completely identical with that of any other actual occasion.

That is to say, although all actual occasions evidence the same metaphysical principles, the manner in which these are exemplified differs with each. If actual occasions exhibit the same metaphysical "structure;" but they differ in the degree of complexity in their process of concrescence and in their powers of mentality and so differ in degree from one another. That is, although actual occasions may appear to fall into distinct types,3 in fact upon

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1Pr, pp. 335-36.  2Ibid., p. 233.  3Ibid., p. 168.
a closer inspection of their internal make-up they are seen to exemplify identical principles. Therefore actual occasions are similar in that none of them has anything in their underlying make-up not had in some degree by any other occasion; they are dissimilar in that each has more-or-less of it than the others. When one actual occasion is sufficiently more complex, i.e., sufficiently exceeds another in its powers of mentality and in the complexity of the process of concrescence, in effect a point, a critical threshold, is crossed. The result is that there emerges an occasion of experience manifesting a new and higher level of actuality not found in the lower occasion.2

b) Textual Evidence in Support of this Interpretation

What follows is a very general outline of Whitehead's classification3 of actual occasions which will attempt to substantiate the above interpreta-

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1Ibid.

It seems that this analysis better enables us to understand Whitehead's position on the classification of actual occasions than does the statement by Rorty that each actual entity can be compared to an Aristotelian Primary Substance "distinctive in being a species unto itself (resembling, in this respect, angels as characterized by Thomas Aquinas). No two Whiteheadian occasions have the same subjective aim (cf. Christian, /An Interpretation/, p. 310), and thus there is no distinction in Whitehead between specification and individuation." ("Matter and Event," p. 505). Though contributing to our understanding of Whitehead by placing the discussion within a fairly well known philosophical tradition, Rorty's analysis must be reconciled with Whitehead's often repeated insistence that
(1) all actual entities should exemplify the same principles,
(2) that actual occasions and also nexus must differ only in degree,
(3) yet some manifest activities not at all evidenced in others.

3For an analysis of Whitehead's thoughts on "classification" see Christian, An Interpretation, Chapter xii, pp. 221-41 and especially Chapter xiii, "Classification," pp. 242-56.
tion. In *Process and Reality* Whitehead says that the most concrete elements in the nature of an actual entity are exhibited by an analysis of its prehensions.\(^1\) Therefore he discovers a basis for distinguishing various grades of actual occasions by analysing the prehensions involved in the subject's process of concrescence. The process involves data, feelings, and the stages of concrescence:

the difference between actual occasions arising from the characters of their data, and from the narrowness and width of their feelings, and from the comparative importance of various stages, enables a classification to be made whereby these occasions are graded into various types.\(^2\)

Whitehead immediately adds, however, that "From the metaphysical standpoint these types are not to be sharply discriminated; as a matter of empirical observation, the occasions do seem to fall into fairly distinct types."\(^3\) Because the process has as its goal the "one determinate integral satisfaction of the subject,"\(^4\) an alternative way of summarily stating the basis of classification is to differentiate actual occasions "in regards to their 'satisfaction,'" which arises out of their "datum by operations constituting the process."\(^5\) More specifically, inasmuch as satisfaction are

\(^1\) *PR*, p. 28.

\(^2\) *Ibid.*, p. 168. It should be noted that Whitehead offers different analyses of actual occasions, as we shall see presently; for example, *PR*, pp. 169-70, 227; *MT*, pp. 121, 127. However, these can with little difficulty be shown to be consistent with the present analysis.

\(^3\) *PR*, p. 168.

\(^4\) See *PR*, pp. 38-39, the 25th-27th "Categories of Explanation."

classified by reference to "triviality," "vagueness," "narrowness," and "width," actual occasions can be similarly graded by reference to these terms. These two passages are complementary, however, for the data may be classified as "trivial" or "vague" and feelings as "narrow" or "wide." Neither classification has any meaning apart from the process of concrescence which they entail and which is itself divided into phases. Whitehead is here attempting to specify how the process of concrescence culminating in a particular level or type of satisfaction arises from two basic sources: (1) extrinsically from the datum determining in the order of efficient causality and (2) intrinsically from the mental pole self-determining in the order of final causality. As a consequence, actual occasion will be classified from either or both perspectives. Before turning to Whitehead's classifications of actual

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1Ibid., pp. 169-70.

2These four terms ("triviality," "vagueness," "narrowness," and "width") are used to describe how actual occasions synthesize their data and thereby illicit the maximum "intensity" of satisfaction. It would therefore appear that they cannot be incorporated to classify all actual occasions for they seem to eliminate from consideration that extreme actual occasion whose datum is absolutely simple. However this does not appear to be a serious objection for several reasons. First, given the "principle of relativity" it is difficult to conceive how the datum which makes the actual world of an actual occasion can ever be absolutely simple. (PR, pp. 33, 42). Second, even where only one actual occasion is the initial datum, only aspects of this datum are positively prehended, others being negatively prehended. (See, for example, PR, pp. 363-64, 337-38.) This means that complexity is introduced with the datum, for the subject must synthesize the subjective forms arising from both the positive and negative prehensions. Third, in fact Whitehead speaks of the simplest occasions as experiencing a few "sensa" (data). (PR, p. 176, see pp. 174-76.) Fourth, every actual occasion also prehends God. (PR, pp. 523-33.) Finally, even disregarding the above reasons, the point could be made that where the data is the simplest the actual occasion cannot but be the simplest grade actuality.
occasions and nexus, we should at least summarize his general discussion of how differences arise in the data and in the role of mentality. This summary will be filled in when, in the following chapters, we will analyze the uniqueness of the data and the role of mentality in human intellectual conception and free choice properly so called.

(1) Datum: the Extrinsic Source of Classification

The importance of the datum (in the initial stage of concrescence and consequently throughout the process) is the ironclad determination which it places upon the freedom of the emerging subject. The datum is one "reason" why no actual occasion can be completely free, completely and radically novel. Its datum "both limits and supplies," and "there can be no transgression of the limitations of capacity inherent in the datum." Whitehead specifies two extreme limitations of the data: the data may be "trivial" or "vague."

In speaking of "triviality" and "vagueness," Whitehead is attempting to further specify the principle of relativity in terms of the mechanics of his system. According to this principle, if we allow for degrees of relevance and for negligible relevance, it is necessary to say that every actual entity—both past and present (i.e. contemporary)—is present in every other actual entity. Taken together these entities constitute the total environment out of which the subject emerges.

However, we must discriminate broadly two layers of this environment: the more direct environment providing a massive "systematic" uniformity through

1PR, p. 168.  
2Ibid., p. 79.
discrimination, contrasts, and dismissals of irrelevant diversities, and the more remote chaotic background where the uniformity is massive but "trivial" and "vague."¹ Triviality and vagueness are important because they express a crucial fact about the given data, namely, that though everything is ultimately given, some data are more-or-less trivial, that is incompatible, others more-or-less vague, that is faintly discernible individually. In either case, the satisfaction of the subject to the extent that it is dependent upon such factors of the data is itself trivial and/or vague.

In its stage of process during which it is not fully definite the actual entity "determines its own ultimate definiteness."² It accomplishes this by "unifying" or "synthesizing" the data of its prehensions under the guidance of its subjective aim and/more remotely in virtue of the activity of its mental pole. Whitehead calls the resultant unity of entities a "contrast.³

¹Ibid., pp. 171-72: "According to this account, the background in which the environment is set must be discriminated into two layers. There is first the relevant background, providing a massive systematic uniformity. This background is the presupposed world to which all ordinary propositions refer. Secondly, there is the more remote chaotic background which has merely an irrelevant triviality, so far as concerns direct objectification in the actual entity in question. This background represents those entities in the actual world with such perspective remoteness that there is even a chaos of diverse cosmic epochs. In the background there is triviality, vagueness, and massive uniformity; in the foreground discrimination and contrasts, but always negative prehensions of irrelevant diversities." Because triviality and vagueness take on significance in terms of a subject's comparison of various data in its actual world, they are important in regard to the category of transmutation. Transmutation is examined in the following chapter.

²Ibid., p. 390.

³Ibid., p. 33, 7th "Category of Existency"; and p. 36, 17th "Category of Explanation": "That whatever is a datum for a feeling has a unity as felt.
The data are "trivial" when no feeling arising from one factor of the datum is reinforced by any feeling arising from another factor. This occurs when the data are experienced as incompatible and when as a consequence the unity of contrast is minimal. When this happens the actual occasion does not "elicit" depth of feeling from contrasts thus presented.\(^1\) Since the data cannot be coordinated and synthesized they are dismissed and the higher complexities of the process of concrescence cannot be attained. The result is an actual occasion that is enslaved to the data and whose satisfaction evidences a low-level of intensity. Such are the simple grade actual occasions:

The simplest grade of actual occasions must be conceived as experiencing a few sensa, with the minimum of patterned contrast. The sensa are then experienced emotionally, and constitute the specific feelings whose intensities sum up into the unity of satisfaction. In such occasions the process is deficient in its highest phases; the process is the slave to the datum. There is the individualizing phase of conformal feelings, but the originative phases of supplementary and conceptual feelings are negligible.\(^2\)

"Vagueness" arises from an opposite characteristic of the data. Whereas triviality originates because of a lack of coordination and identification of the data, vagueness is due to excessive coordination and identification.\(^3\) That is to say, where the actual occasions constituting the data are very similar, it is possible that they be experienced as one, as a "contrast."\(^4\) It is also possible that the many actual occasions be experienced as

Thus the many components of a complex datum have a unity: this unity is a 'contrast' of entities. In a sense this means that there are an endless number of categories of existence, since the synthesis of entities into a contrast in general produces a new existential type."

\(^1\)Ibid., p. 170
\(^2\)Ibid., p. 176.
\(^3\)PR, p. 170; also see pp. 179, 362-63.  
\(^4\)Ibid., p. 36; AI, pp. 324-25.
a "vague one," not a "definite one," and consequently they become more-or-less irrelevant for the process of concrescence: "When there is such vague prehension, the difference between the actual entities so prehended are faint chaotic factors in the environment, and have thereby been relegated to irrelevance."¹

Whitehead then calls attention to the characteristic of vagueness when contrasted with triviality. With the latter, contrast between the objectified data is minimal because the data "resist" unification whereas with the former, contrast is minimal due to excessive unification. Mentality is the agency of simplification and abstraction. Therefore while the lack of coordination or simplification manifested in triviality tends to produce a low-grade actuality, i.e., low-grade actual entities, vagueness is a tendency in the opposite direction; vagueness arises from a compatibility among the data and therefore is the extrinsic reason why these many data can be experienced as if they were one.²

To the extent that the data out of which the present experience grows are trivial or vague, to that extent they do not directly contribute to causally determine—the subject. This is but one side of the picture, though obviously an important one. For after all, not all the data are trivial or vague. In the immediate environment are data that are "significant" and "distinct," that is to say, data which do causally determine the emerging subject in the order of efficient causality.

¹PR, p. 170. ²Ibid., pp. 170-71.
Recall that physical experience, or, technically, physical prehension in the primary phase of concrescence, is an aesthetic experience of emotion received as felt in another actual occasion and conformally appropriated as a subjective emotion or passion in the subject. Now in order for appropriation and conformity of the least degree of complexity to occur it is necessary that from the welter of the totality of the given, the subject be able to isolate some relevant data within its immediate environment. It must be able to abstract some "significant" and "distinct" data and thereby elicit some degree of intensity of feeling from the multiplicity of individual emotions arising out of the components in the data. The feelings thus elicited are termed "narrow." Inasmuch as the subject is "reacting-to" the data, the extent of the narrowness thus elicited is in part determined by the "givenness" of the data.

The importance of "vagueness"—as opposed to "triviality"—is that it makes "narrowness" possible. The other condition, Whitehead says, is that this common characteristic of the data be intensified. By this he means it must be isolated or abstracted and thereby rendered capable of further contributing to the development of the subject's degree of actuality. This is what Whitehead means when he says that narrowness of feeling derived from relevant data is one factor characterizing the grade of intensity of satisfaction.

1PR, p. 246.  
2Ibid., p. 252.

3"When there is such vague prehensions the difference between the actual entities so prehended are faint chaotic factors in the environment, and have thereby been relegated to irrelevance. Thus vagueness is an essential condition for the narrowness which is one condition for depth of relevance. It enables a background to contribute its relevant quota, and it enables a social group in the foreground to gain concentrated relevance for its community of character." (PR, p. 171.)
and thereby the grade or level of actuality of the actual occasion: "The lower organisms have low-grade types of narrowness; the higher organisms have intensified contrasts in the higher categories."  

Coordinating these intensified contrasts in the supplemental phase of concrescence develops "width" of feeling, the second factor characterizing the intensity of satisfaction:

In a sense this satisfaction is two-dimensional. It has a dimension of narrowness, and a dimension of width. The dimension of narrowness refers to the intensities of individual emotions arising out of individual components in the datum. In this dimension, the higher levels of coordination are irrelevant. The dimension of width arises out of the higher levels of coordination, by which the intensities in the dimension of narrowness become subordinated to a coordination which depends upon the higher levels of comparison.  

The importance of what Whitehead calls the "width of feeling" is that through it the complexity of the universe can enter into the process of concrescence and thereby ultimately contribute, by way of efficient causality, to the completion, the satisfaction of the subject.

(2) Mentality: the Intrinsic Source of Classification

Whereas "triviality," "vagueness," "significance," and "distinctness" pertain initially to the givenness of the data—or the environment—"narrowness" and "width" primarily refer to the subjects reaction-to the data. Since an actual occasion is a causa sui, there is an intrinsic source contributing to the specification of these feelings. This source is found in the activity of the mental pole and is ultimately grounded in the activity of creativity.

\[1\text{Ibid.}, \text{pp. 172, 175.} \quad 2\text{PR, p. 252; also pp. 246-48, 175.} \quad 3\text{Ibid., pp. 127-30, 252-53, 245-48.}\]
As an indication of the importance of the role of mentality, let us return to Whitehead's discussion of "triviality." It was noted that the satisfaction of an actual occasion is "trivial" when no feelings arising from one factor of the datum is reinforced by any feeling arising from another factor. Whitehead says that the deciding reason for this lack of reinforcement is that "the specific constitution of the actual entity in question is not such as to elicit depth of feeling from contrasts thus presented." The datum may be such as to hinder reinforcement; for Whitehead too, "you can't make a silk purse from a sow's ear." Nevertheless, the mental pole is the proximate organ whereby the subject determines its own ideal of itself. Therefore the intrinsic source of the extent of the "triviality" is to be found at the mental pole. In other words, this source is due to the operations of mentality manifested by the actual occasion. This is brought out by examining Whitehead's statements concerning the phases of concrescence leading to satisfaction.

Whereas the initial phase is primarily conformal, receptive, and repetitive, in the second or supplemental phase proximate novelties are felt. In the second phase the proximate novelties are conceptually felt. This is the process by which the subsequent enrichment of subjective forms, both in qualitative pattern, and in intensity through contrasts, is made possible by the positive conceptual prehension of relevant alternatives. In this footnote Whitehead refers the reader to RM, Chapter III, section 7. There is conceptual contrast of physical incompatibles...It is the category by which novelty enters the world; so that even amid stability there is never undifferentiated endurance." (PR, p. 381.) Cf. PR, p. 40, 5th "Categorial Obligation."
Subdividing the supplemental phase into two subordinate phases, (Whitehead calls them the "aesthetic supplement" and "intellectual supplement"),\(^1\) whitehead says that both of these phases may be trivial. When this occurs the entire supplemental phase is trivial and, as a consequence, satisfaction is trivial. Instead of introducing an appreciable degree of novelty by illiciting depths of contrast, the actual occasion does little more than reproduce the past and transfer it to the future.

If both phases are trivial, the whole second phase is merely the definite negation of individual origination; and the process passes passively to its satisfaction. The actual entity is then the mere vehicle for the transference of inherited constitution of feeling. Its private immediacy passes out of the picture.\(^2\)

But the mental pole is the intrinsic source of the subject's creative energy and therefore the degree of mental activity determines, with the data upon which it must integrate, the complexity of activity in the supplemental phases and ultimately the degree of intensity of satisfaction: "The origina-
tive energy of the mental pole constitutes the urge whereby its conceptual prehensions adjust and readjust subjective forms and thereby determine the specific modes of integration terminating in the 'satisfaction.'"\(^3\) Low-grade mentality is therefore the intrinsic source which prevents "reinforcement" of the data and which renders some data more "trivial," and other data less "trivial" or more "significant." But because of the real interrelatedness of reality what is "trivial" for an actual occasion exhibiting a low-grade of mentality could be "significant" for a higher-grade actuality, and for the

\(^1\)PR, p. 325. \(^2\)Ibid. \(^3\)Ibid., p. 436; cf. p. 381.
highest grade actual entity, for God, nothing is "trivial" all is "significant."

A similar analysis could be given of "vagueness," and "distinctiveness." The process of unification of the datum, whether the unity be "vague" or "distinct," involves a synthesis and, inasmuch as every actual occasion is at least minimally novel, involves a subsequent adjustment of the emergent subjective forms. As we have just seen, the process of unification and synthesis is guided by the energy of the mental pole. Moreover, Whitehead defines "narrowness" and "width" in terms of intensities of emotion in various levels of coordination within the process of concrescence. But again, inasmuch as the actual entity is causa sui, the coordination of the entire process has an intrinsic source and this is the originative energy of the mental pole.

c) The Classification of Actual Occasions

Certainly a more detailed analysis of these extrinsic and intrinsic sources of classification would be required to fully appreciate the intricacies of Whitehead's analysis. The above summary is meant to indicate the general manner in which Whitehead wishes to classify the various grades of actual occasions. In the following chapters this summary will be fully worked out when we present a Whiteheadian analysis of human freedom. The importance of noting Whitehead's procedure is that it will better enable us to understand how Whitehead can hold what otherwise appears as two conflicting propositions. On the one hand he argues that all actual entities are more-or-less free, i.e. that the difference in their freedom is one of degree. On the other hand he
suggests that some actual occasions, such as those constituting the human soul, manifest a uniquely higher mode of free activity. As we intend to demonstrate in much greater detail in the following chapters, we think that a solution to these textual difficulties may be found in an analysis of the different degrees in which the environment—including God’s role in the entire process—and the mental powers are operative in the process of concrescence.

In this chapter our purpose is more limited. We are now attempting to clarify Whitehead’s various classifications of actual entities as a basis for establishing man’s place in the hierarchy of macroscopic entities.

An actual occasion is the synthesis of both efficient and final causes and therefore each source is important, equally so in their own way—which is why actual entities can be analysed from either perspective. When classifying actual occasions, however, Whitehead usually emphasizes the role of mentality as the basis for comparisons, as can be seen when we turn to some texts in Process and Reality, Adventures of Ideas, and The Function of Reason.

In Process and Reality Whitehead suggests a fourfold division of actual occasions:

In the actual world we discern four grades of actual occasions, grades which are not to be sharply distinguished from each other. First, and lowest, there are the actual occasions in so-called 'empty space'; secondly, there are the actual occasions which are moments in the life-histories of enduring non-living objects, such as electrons or other primitive organisms; thirdly, there are the actual occasions which are moments in the life-histories of enduring living objects; fourthly, there are the actual occasions which are moments in the life-histories of enduring objects with conscious knowledge.\

1PR, p. 269.
A few preliminary observations are in order concerning this classification. First, Whitehead is intent on upholding the principle of the continuity of nature. By denying that these grades are sharply distinguished, Whitehead wishes to emphasize that they differ in degree rather than in kind. That is, composed of similar metaphysical principles, actual occasions will be differentiated on the basis of the degree to which the environment and the powers of mentality are operative in their process of concrescence. On the other hand, he finds it useful to mark certain points at which one may discern significant differences between various types of actual occasions. He even goes so far as to say that in fact some activities are manifest only in certain types of actual occasions. At certain discernible points in the degree of complexity, actual occasions begin to manifest different activities—that is activities not found in "lower" type occasions. It is useful to mark these points as dividing two classes of actual occasions. As we have suggested, we think it is fruitful to interpret Whitehead to mean that at these points a "critical threshold" has been crossed. With this crossing there emerges an actual occasion evidencing an activity or series of activities presently not discernible in lower type occasions.

Second, Whitehead's classification of actual occasions is often given in terms of the macroscopic entities of our direct experience. Now this is not surprising, for inasmuch as the macroscopic entities are built-up from the microscopic, the former may be used to indicate the division of the latter. It must be remembered, however, that here the order of our knowledge is opposite that of reality; in the ontological order it is because actual entities
fall into these basic divisions that nexus can be so classified.

Finally, it might be well to emphasize the interpretative character of the following classifications. Our aim in the remainder of this chapter is to present a summary of Whitehead's classification of microscopic and macroscopic entities that is both faithful to the texts and sympathetic to the spirit and intention of Whitehead's philosophy. Consequently the interpretation we offer to remove apparent contradictions within the texts—namely, Whitehead's assertion that actual occasions differ in degree and that nevertheless some activities are discoverable only in certain types of actual entities—is meant to strengthen, not weaken, Whitehead's position.

What characterizes the lowest or first grade actual occasions—those in "so called empty space"—is their extremely low level mental powers. The activity of their mental pole in the supplemental phases of concrescence, that is where the mental pole is viewed as the source for novel conceptual activity, is at the lowest level. In fact, it is so low that Whitehead characterizes these first grade occasions as evidencing "supplemental" and "mental" phases that are "lost in the sense that, so far as our observations go, they are negligible."¹ Because the mental pole is the intrinsic source of novelty, these inorganic occasions are more enslaved to the data than free. They are "merely what the causal past allows them to be."²

Anticipating our analysis of the "modes of perception" that will follow in Chapters IV and V, we can at least note here that Whitehead's classification of actual occasions is explained in terms of the occasion's "percep-

¹Ibid., p. 269. ²Ibid.
tive" powers. Like all actual occasions, the lowest grade "perceive" in the mode of "causal efficacy"; that is to say, they prehend the past causally determining (efficient causality) the present. But for these actual occasions perception in the subsequent mode of "presentational immediacy" is negligible—if not totally absent—and because perception in this latter mode is negligible, "presented duration," i.e. the experience of one's contemporaries, is also negligible—if non-existent.

Actual occasions of the next highest or second grade evidence significantly greater mental powers. For these occasions the data given in causal efficacy are able to be projected onto a "contemporary presented locus," but we have not yet arrived at the level of clear awareness of the contemporary world. Here the "feeling" is like that observed in the lower moments of human experience, namely of a vague awareness of belonging to a world inhabited by contemporary entities. "The past has been lifted into the present, but the vague differentiations in the past have not been transformed into any precise differentiation within the present." 3

Life emerges with the third grade actual occasions, 4 but it is life

1 Ibid., pp. 261-62. 2 Ibid., p. 269. 3 Ibid., p. 270.

4 Difficulties with Whitehead's definition(s) of life are well known. For example, see Johnson, Whitehead's Theory, pp. 53, 185. Johnson notes that Whitehead explicitly affirms that life is predicated of "societies" and not of individual actual occasions (AI, p. 266) and at the same time so defines life (MT, pp. 205-06) that individual actual occasions must surely be said to be living. However, this is only an apparent contradiction, for the passage from AI comes from the chapter entitled "The Grouping of Occasions" which primarily deals with nexTs and societies. Whitehead is there primarily concerned with the reality of macroscopic entities and therefore he is intent on describing
at its lower expressions as in the occasions constitutive of unicellular

the "life" of these entities. From this perspective "life" is predicated of
the multiplicities of actual occasions taken as a unity rather than of the
members taken individually. However in MT, pp. 205-06, in PR, esp. p. 21, and
most notably in PR, p. 156 Whitehead is speaking from a strictly metaphysical
perspective and there it is clear that what is really and fully real are
actual entities. Which means that societies are called living only to the ex-
tent that the regnant nexus is (are) constituted by actual occasions each of
which taken individually is really living.

A second difficult is whether all actual entities, and therefore all
nexus and societies, are living. Whitehead says that societies are more-or-
less living (PR, p. 157), and therefore does it not follow from what was just
said that actual occasions are more-or-less living? More than that, are not
all societies and all individual occasions living? This is the view of Shahan
in his Whitehead's Theory of Experience. Stressing the MT text Shahan inter-
prets Whitehead to mean that "there is no difference in kind between animate
and inanimate life" although there are "many differences in degree." (p.9.)
Christian also interprets Whitehead to mean that all actual occasions are
alive. (An Interpretation, p. 309.) While there are very good reasons for
agreeing with the interpretations of Shahan and/or Christian, there is never-
theless, the difficulty that Whitehead does after all speak as if only some
occasions and societies ought to be properly termed living. Therefore it
appears that some such distinction as we have noted above could allow the
ponent of a Whiteheadian type analysis to maintain both perspectives without
contradiction. For as Lowe says, Whitehead works out the "relative differences
between the organic and inorganic in terms of "novelty of appetite, in
rhythm, and in structural integration." (Understanding Whitehead, p. 261.)
Add to this the idea of an "underlying difference in degree" and of a "crit-
ical threshold" and one can speak of the newly emergent level or kind of liv-
ing occasions and living societies and nexus. See Mortimer J. Adler's The
Difference of Man and the Difference it Makes (New York: Holt, Rinehart, and
of these editions is identical. / We have not used Adler's dialectical terms
"superficial difference in kind" for fear of being misunderstood, but primarily
because Adler's term "superficial difference in kind" leaves unexamined the
absolutely fundamental question of whether qualitative differences can be ex-
plained as the outcome of quantitative differences. Of course, it might be
objected that this already presupposes that there are qualitative differences,
and this is precisely what Whitehead wishes to deny. On the other hand, even
Whitehead speaks of activities and actuality evidenced only by some and not
all actual occasions, and, we suppose, the question is whether this implies
differences in kind when speaking of the nature of actual occasions.
bodies, vegetables and low-grade animals like the jellyfish. What differentiates this class of actual occasions is that perception in the mode of "presentational immediacy" is becoming precise\(^1\) and consequently the vague feelings of the past are able to be more clearly apprehended. Here mentality has reached the level of conscious awareness of one's past and contemporary world. With presentational immediacy mere sense reception is being replaced by what in ordinary experience we call "sense perception." The degree at this level of actuality will in part depend on the degree to which presentational immediacy is operative in concrescence.

The **fourth grade** occasions manifest the rather high degree of mentality Whitehead calls "conscious judgment" and which we term "intellectual conception" in the following chapters. At this level mentality has been canalized\(^2\); it has attained a new and unique level of heightened powers of abstraction and simplification. At this level there emerges "free conceptual functionings, whereby blind experience is analysed by comparison with the imaginative realization of mere potentiality."\(^3\) We have reached the grade of experience evidenced in the higher manifestations of human conscious life. At this highest level of mentality of actual occasions "reason" appears as the critical judgment of "free imagination." As we shall see, the self-determination of these highest grade actual occasions entails "freedom of choice" properly so called.

Similar classifications of actual occasions based on the role of mentality in the process of concrescence appear in *Adventures of Ideas* and *The*  

Function of Reason. In Adventures of Ideas, Whitehead gives a very general division of the phases of concrescence. In the initial phases the real antecedent world is given: "This is the 'reality' from which that creative advance starts. It is the basic fact of the new occasion, with its concordances and discordances awaiting coordination in the new creature."¹ In the intermediate phase of concrescence additional conceptual prehensions are introduced. At this phase the mental pole derives its objective content by abstracting from the data given with the physical pole and by the immanence of the Divine Lure functioning as the source of novel possibilities.² Whereas in the initial phase the subject is receptive of the "reality" given by the datum at the physical pole, at the final phase mentality has affected the introduction of "appearance":

'appearance' is the effect of the activity of the mental pole of mentality, whereby the qualities and coordinations of the given physical world undergo transformation. It results from the fusion of the ideal with the actual.³

Again Whitehead proceeds to distinguish various grades of actual occasions using the macroscopic world as a basis of reference.

The "lower-grade" actual occasions, those which compose societies of inorganic bodies or of "empty space" are characterized by their strictly conformal activities: "there is no reason to believe that in any important way the mental activities depart from functions which are strictly conformal to those inherent in the objective datum of the first phase."⁴ In other words,

¹AI, p. 269. ²AI, p. 270. ³Ibid., also see p. 332. ⁴Ibid., p. 217.
the supplemental phase is not sufficiently complex "to allow" higher types of actual occasions to emerge. As a consequence, no appreciable novelty is introduced and there is no effective "appearance."¹ In the higher-grade actual occasions such as those which are components in animal life, mentality may so coordinate the bodily organism that a personal society of occasions comes to dominate the whole. Mentality has enabled appearance to become effective; and in connection with mentality it happens that in the higher animals consciousness arises in the subjective form.² Finally, the still higher-grade actual occasions that are operative in the higher functions of a man are characterized by their even higher level mentality. Here "the higher functionings of mentality are socially stabilized in an organism," and "appearance merges into reality."³

But then a caution. Whitehead says that we are apt to think of this fusion of appearance and reality as belonging only to the higher grades of occasions evidenced in human beings. Quite the contrary. For, "it is a fusion proceeding throughout nature. It is the essential mode in which novelty enters into the functionings of the world."⁴ This is to say that low-grade actual occasions are less novel and less free because the activities of their mental pole are highly conformal. The activity of the mental pole in the supplemental phase wherein novelty enters through the entertainment of novel eternal objects is, in a word, negligible. Consequently the occasion's

¹Ibid., p. 271. Underlining is mine. ²Ibid. ³Ibid. ⁴Ibid., pp. 272-73.
measure of novelty and freedom tends to be minimal.¹

At the other end of the spectrum of our present experience stands the very high grade actual occasions, such as those which constitute the dominant consciousness of the organism called a man. These organisms are said to manifest a very high degree of freedom because the mental poles of their dominant actual occasions are much less tied-down, that is determined, by their past data. For them mentality involves much more spontaneity and origination of decision, much more novelty and freedom, though it must be remembered that "spontaneity, originality of decision belongs to the essence of each actual occasion."²

In the Functions of Reason, Whitehead had presented much the same idea. Reiterating that every actual occasion of experience is bi-polar,³ he says that mental experience, that is the activity of the mental pole, is the organ of novelty.⁴ Mentality is the appetitive urge, the emotional agency whose goal is the integration of the matter-of-fact definiteness of the past with the novel definiteness of the present occasion and with occasions which lie beyond.⁵ In the lowest forms of actual occasions mentality is "canalized"⁶

¹See Chapter ii of this dissertation, pp. 102-12.
²AI, p. 332. ³FR, p. 32.
⁴"Mental experience is the organ of novelty, the urge beyond. It seeks to vivify the massive physical fact, which is repetitive, with the novelties which beckon." (FR, p. 33.)
⁵FR, p. 32.
⁶Ibid., p. 30. For the "canalization" of mentality also see FR, pp. 163-65, 196, 270.
into slavish conformity with the past. "It is merely the appetition towards, or from, whatever in fact already is."\(^1\) At this level mentality takes the form of a blind urge towards a given form of experience.\(^2\)

This lowest form of slavish conformity pervades all nature. It is rather a capacity for mentality, then mentality itself. But it is mentality. In this lowly form it evades no difficulties: it strikes out no new ways: it produces no disturbance of the repetitive character of physical fact. It can stretch out no arm to save nature from its ultimate decay. It is degraded to being merely one of the actors in the efficient causation.\(^3\)

Toward the other end of the spectrum, high-grade actual occasions originate where there is a high-level mentality operative at the mental pole. Now the higher levels of mentality arise as the outcome of complex integrations and reintegrations of the mental and physical poles. As a consequence of the higher level of complexity, rather than speaking of "slavish conformity," Whitehead says that at this level mentality "brings novelty into the appetitions of mental experience."\(^4\) When mentality becomes self-regulative, it can "canalize" its own operations by its own judgments. Reason emerges, and with higher grades of Reason appear those very high-grade actual occasions that come to dominate the society of occasions constituting a human being.\(^5\)

Let us summarize the above. In these representative passages from *Process and Reality*, *Adventures of Ideas* and *The Functions of Reason*, Whitehead reasons that although all actual occasions are bi-polar, not all exercise the same degree of complexity of mental activity. He chooses to distinguish the grades of actual occasions on the basis of the degree of mentality and the

\(^1\) *FR*, p. 33. \(^2\) *ibid.*, p. 32. \(^3\) *ibid.*, pp. 33-34. 
\(^4\) *ibid.*, p. 34. \(^5\) *ibid.*; cf. pp. 37-41, 8-10, 26-28.
degree of complexity of the process of concrescence. In brief, he persists in maintaining that occasions differ "only in degree" or that "they are not sharply distinguished." On the other hand, Whitehead maintains that they form really distinct groups. For example, he says that whereas every actual occasion has the capacity for knowledge and whereas there are gradations in the intensity of knowledge, nevertheless knowledge seems negligible apart from a "peculiar complexity" in the constitution of some actual occasions,¹ so that only these more complex occasions can be said to know. In our opinion, Whitehead is intimating that knowledge emerges when the internal complexity of the process of concrescence reaches what amounts to a "critical threshold." Distinguishing living from non-living actual occasions Whitehead says that the difference between them is "only a question of degree; but it is a difference of degree which makes all the difference—in effect, it is a difference of quality."² That is, living and non-living actual occasions differ inasmuch as a critical threshold, called life, has been crossed. The underlying cause of this difference is due to the living occasions' manifesting a higher degree of complexity in their process of concrescence and in their greater powers of mental activity.

Again, Whitehead says that while primitive feelings are found at the lower levels of actuality, with sense perception we have passed the Rubicon, dividing direct perception from the higher forms of mentality.³ Once more he says that only some actual occasions are conscious, for consciousness arises only in a late derivative phase of concrescence involving complex integrations;

¹PR, p. 244. ²Ibid., p. 271. ³Ibid., p. 173. ⁴Ibid., p. 245.
it is a prolongation of the stage of supplementation.\(^1\) Finally, while all actual occasions experience perception in the mode of "causal efficacy,"\(^2\) "presentational immediacy" arises only with the relatively few higher grade occasions that manifest more complex or sophisticated activity of the later phases of concrescence;\(^3\) and since "perception in the mode of symbolic reference" arises from still higher phases of experience,\(^4\) it is characteristic of still fewer and still higher grade actual occasions.

Extending this interpretation to Whitehead's actual classifications, we understand him to mean that on the basis of our present knowledge we are able to discern four great classes of actual occasions in our present cosmic epoch. The degree of mentality and complexity of the process of concrescence accounts for the "critical thresholds" at which point emerges life in only higher grade occasions, sense perception only with still higher occasions, intellectual cognition only with even higher type occasions, etc. These distinctions are tentative in that subsequent research may necessitate ascribing sensation or even intelligence to all actual occasions. Given the present state of empirical science and of our knowledge in general, however, the above division holds.

A final observation. When the above interpretation is related to the

\(^1\)Ibid., p. 250, 251; cf. pp. 409, 245. \(^2\)Ibid., p. 261.


\(^4\)PR, p. 255.
findings of Chapter II, a classification could be made on the basis of the degree of "novelty" and "freedom" that would correspond exactly to the above classification. Exercising the greatest degree of mentality and complexity of concrescence, the highest grade actual occasions are also the least determined, the most novel, and the most free. So on down through the orders of actuality until we reach occasions that are most determined, least novel, and least free.¹

Another interesting and very significant correlation appears. Just as all actual occasion exercise mentality, but there are different degrees of mental activity, so all occasions exercise freedom, but there are degrees of freedom. There comes a point, a critical threshold, when the consequence of the great difference in degree causes the emergence of a significantly higher and unique level of freedom: all actual occasions are free, but differing in their powers of mentality in the complexity of their concrescence they exercise different levels of freedom.

Before investigating the kind(s) of freedom peculiar to the actual occasions constituting a human being it will be necessary to conclude this chapter by locating man's position in the hierarchy of macroscopic entities. This will involve first completing classification of nexus begun earlier.

C. The Classification of Nexus

1. Introduction: Wider and Narrower Nexus

The initial classification of nexus based on the "mutual immanence" of

¹For example, see MT, pp. 38-39, AI, p. 62.
actual occasions isolated three types of nexus: purely spatial, purely temporal, and the four-dimensional spatial-temporal nexus exemplified in the objects of ordinary sense experience. Actually this classification is incomplete from two directions, for Whitehead speaks of both wider and narrower "societies." Nature, he says, is to be conceived as a "series of societies of increasing width of prevalence, the more special societies being included in the wider societies."¹ Our place within Nature, what Whitehead calls our present "cosmic epoch," finds its expression in these three types of nexus and is called the "electromagnetic society."² The "electromagnetic society" is a specification of a still more general "geometrical society" which it presupposes.³

Other multi-dimensional systems besides our own 4-dimensional system(s) are conceivable within this "geometrical society," such as those having 5, 6, 7...Xn dimensions⁴ for space and time express but specific ways in which extension is evidenced by the entities of our experience.⁵ The point is that neither space nor time nor their combination exhaust the kinds of extensive connection conceivable in the universe. There is no valid reason for permanently restricting our conceptions to these 4-dimensions. Nor need we restrict them to "dimensionality" at all. The widest or most general "society" pre-

¹PR, p. 141. ²Ibid., p. 139, 141.
³Ibid., pp. 148-49. ⁴Ibid., pp. 140, 442.
⁵Ibid., p. 442: "...the extensiveness of space is really the spatialization of extension; and the extensiveness of the time is really the temporalization of extension." Cf. pp. 95, 105.
sently conceivable and the "society" presupposed in the "geometrical society," and therefore in our "electromagnetic society," is the "society" of pure extensiveness, what Whitehead calls at times the "extensive continuum." Very

1PR, pp. 147-48. It appears that in PR Whitehead is involved in a terminological difficulty, if not a substantive one. It is puzzling that Whitehead would call the extensive continuum a society at all. For, purely spatial nexus are ultimately specifications of the continuum of mere "extensive connection" and yet they are not societies. But if the extensive continuum is a society, either these nexus do not specify it, i.e., they are outside of it, or they do, in which case they are societies. The point is that societies are technically defined in terms of order, whereas purely spatial nexus are "chaotic." (PR, p. 112.) No, it would appear that because the extensive continuum refers to those connections manifest by all actual occasions, past, present, and future and thereby establishes the general but real possibility for there being one common world (PR, pp. 95-126, and esp. pp. 103, 112, and 442) this continuum ought not to be referred to as a "society." Again, "society" refers to one kind of nexus, which means that societies are further specifications of the idea of a nexus. A similar objection could be made to calling the "geometrical society" a society.

On the other hand, it could be argued that a purely spatial nexus can only exist as a member of a "society," that is, only within a temporally spread series of actual occasions. Indeed, this is implied by Whitehead, for every actual occasion originates with its physical pole, i.e., with its past. Therefore while a nexus can be purely spatial from one perspective, namely, when considering its member actual occasions as existing contemporarily, nevertheless every occasion within that nexus is also temporally situated: it has grown from its past. From this latter perspective every nexus is ultimately temporally spread. Furthermore, this is consistent with Whitehead's definition of an actual occasion as a "temporal actual entity." An actual occasion cannot be separated from its past or its future. Consequently contemporaries, i.e., spatially spread occasions, are perceived "indirectly."

In the Adventures of Ideas Whitehead seems to have removed this source of possible confusion. There he says that the "general common function exhibited by any group of actual occasion is that of mutual immanence," and that "the group considered merely in respect to this basic property is called a nexus." (P. 258). Given these considerations perhaps the extensive continuum ought not be considered as a society nor even as a nexus. More than that, perhaps it should be thought of as the mere real possibility for the mutual immanence of any actual occasion. In itself the continuum is not a nexus and still less a society. Rather it is no more and no less than the very possibility for there being societies and nexus.
generally then the "extensive continuum" is the most general "society"; the more special society within this society of pure extension is the "geometrical society": within this society are the still more special societies, one of which is our own "electromagnetic society" containing spatially and/or temporally spread nexus.

Now the physical world of our more direct experience exhibits a bewildering complexity of still more special or narrow societies, such as individual electrons and protons, molecules, societies of molecules forming organic and inorganic bodies, and societies of cells such as those constituting vegetables, animal bodies, and men. It is these nexus which must now be classified Whitehead admits that any such further division of nexus is largely conjectural, and yet it must be attempted on the basis of the present state of our knowledge.

2. The Nexus of Our More Direct Experience

The most extensive classification of the grades of nexus appears in Process and Reality and in a group of lectures published as The Modes of Thought. The summary that follows will be based primarily on the material presented in these two works. Whitehead's technical discussion occurs, as to be expected, in Process and Reality and is somewhat developed and even modified

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1See Donald Sherburne, A Key, pp. 223-24 for a slightly expanded division of these societies.

2PR, p. 150.

3Ibid., p. 147; see for example, pp. 157, 158, 164; cf. MT, p. 215, "Immortality,"§X, Philosophy of Whitehead, ed. by Schilpp, pp. 690-91.
in the Adventures of Ideas. The first classification of nexus is given on the basis of "order" (and its correlative opposite "chaos"). What distinguishes "societies" from non-social nexus is that the former exhibit a genetic propagation of order.¹ A society is thus a nexus of actual occasions which are ordered among themselves.² Whitehead gives the following definition of "social order":

A nexus enjoys 'social order' where (i) there is a common element of form illustrated in the definiteness of each of its included actual entities, and (ii) this common element of form arises in each member of the nexus by reason of the conditions imposed upon it by its prehensions of some other members of the nexus, and (iii) these prehensions impose that condition of reproduction by reason of that common form. Such a nexus is called a 'society,' and the common form is the 'defining characteristic' of the society.

The common element of form exemplified in each member of the nexus is a complex eternal object.⁴ The notion of "genetic derivation"—alternatively called "genetic relations" or "genetic propagation" of the members of the nexus expressed by (ii) is the key to distinguishing societies from non-social nexus. It points to the fact that the complex eternal object inherited by an actual occasion is derived from its antecedent occasion in an act of prehension.⁵ In

¹AI, pp. 160-61. ²PR, p. 136.

³Ibid., pp. 50-51. A slightly modified version of this definition appears in AI, p. 261.

⁴PR, p. 51.

⁵PR, p. 51: "The production of the common form throughout the nexus is due to the genetic relations of the members of the nexus among each other, and to the additional fact that genetic relations include feelings of the common form. Thus the defining characteristic is inherited throughout the nexus, each member deriving it from those other members of the nexus which are antecedent to its own concrescence." See pp. 137, 334-35.
the language of causality, the past occasion is the efficient cause initially
determining the ingress of the complex eternal object.

Here we have, then, an instance of the two-way functioning of an
eternal object: the eternal object relates the past with the present and
thereby functions as the ground for the solidarity of the universe. The past
actual occasion is objectified in the present via the ingress of the com-
plex eternal object in both occasions. Contemporary occasions cannot of
themselves form societies precisely because they are not genetically con-
nected. Thus while contemporaries may exhibit the same complex eternal ob-
ject as their defining characteristic, inasmuch as the contemporary actual
occasions are causally independent no occasion derives the characteristic from
any of its contemporaries. It follows that whereas all societies are nexus
only some nexus are societies: non-social nexus are built-up of contemporary
occasions spatially extended or mediately interrelated, while societies are
nexus made up of at least some non-contemporary occasions causally and there-
fore temporally extended or immediately interrelated.

Having distinguished social and non-social nexus, Whitehead proceeds
to further specify the basic kinds of societies in terms of the particular
type of order evidenced by their members. Ideally the least complex type of
society would be a physical object having but one strand of actual occasions
exhibiting purely temporal succession. This is obviously one of the limiting
types of nexus previously mentioned as exemplifying the basic kinds of imma-
nence: a purely temporal spread nexus. Whitehead calls such a society an

1Al, p. 262. 2Ibid., p. 263; PR, p. 52.
"enduring object" or "enduring creature" and says that it is a society "whose social order has taken the special form of 'personal order.'" Now a nexus enjoys personal order when 
\[ \text{it is a 'society,'} \] and when the genetic relatedness of its members orders these members 'serially' so that "the nexus forms a single line of inheritance of its defining characteristic."

Consequently a "person" is a society whose members are temporally spread. A primary example of a personal society is a man defined as a succession of occasions of experience. This example is singularly misleading however, as Whitehead well knows. It may lead to the idea that to be a person the society must at least be alive and conscious. This is to misconceive Whitehead's technical meaning. First, the definition of a personal society is not sufficient to define man, for it has neglected to include man's body which is itself a society composed of a swirling complex of super-sophisticated societies. Second, the definition is applied to a living person and therefore neglects the extreme generality of the notion of an enduring object. Whitehead maintains that enduring objects may or may not form living material bodies—an electron constituted by the route of its electronic occasions being an example of a non-living person. The primary example of a personal society

1. PR, p. 50.

2. Ibid., p. 51.

3. AI, p. 263: "Societies of the general type, that their realized nexus are purely temporal and continuous, will be termed a 'person.'"

4. AI, p. 263, 265; PR, pp. 137-38, 141-42.

5. AI, pp. 263-64.

6. PR, p. 141; cf. pp. 139-40.
would be, in fact, something like a stone.¹

Third, conversely, not all living societies are persons, that is, some do not sustain a personal society. For example, Whitehead says that there is no reason for conjecturing living personality in the case of single cells, vegetables, and the lower forms of animal life.² Fourth, the very use of the word "person" is apt to cause confusion. Consequently Whitehead immediately adds (1) that this use of the word does not necessarily imply consciousness—some personal societies are not conscious; (2) he is using only one of the meanings of the Latin word persona, namely, the idea associated with sustaining a character; and (3) that "this sustenance arises out of the special genetic relations among members of the nexus."³

The ordinary objects of our experience are not simple enduring objects. Rather they are complex societies made up of subordinate societies and/or subordinate nexus exhibiting definite patterns of structural interrelations. These macroscopic wholes made up of macroscopic parts are generically classified as "structured societies."⁴ One species of structured society is termed a "corpuscular society." A corpuscular society is one whose member subordinate societies are all strands of enduring objects. A molecule composed of strands of electrons, protons, etc. is such a "corpuscular society." These societies may be more or less corpuscular "according to the relative impor-

¹PR, pp. 51-52; S, p. 64. ²Ibid., p. 164; 158; cf. AI, p. 264. ³PR, p. 52. ⁴Ibid., pp. 151, 157.
tance of the defining characteristics of the various enduring objects compared to that of the defining characteristic of the whole corpuscular nexus.\(^1\) Taken together enduring societies and corpuscular societies are "the permanent entities which enjoy adventures of change throughout time and space "and which" form the subject matter of the science of dynamics."\(^2\) It is apparent that whereas enduring objects are, of themselves, temporally spread, corpuscular societies are both temporally and spatially spread, or four-dimensional. The spatial dimension of these latter societies derives from the multiplicity of the strands of the member enduring societies. At any one instant in time the material body is composed of many strands of enduring objects.

The molecule is a relatively simple structured society. Crystals, rocks, and similar bodies are more complex to the extent that they are composed of many and often differing kinds of molecules grouped in varying degrees of complexity. So on up to and including planets and suns which, due to their mere size and the variety of their material parts, are vastly more complex kinds of structured societies. Though varying in degrees of complexity, suns, planets, rocks, crystals, molecules—and, Whitehead conjectures, probably even electrons and protons—are all societies of one basic type; they are inorganic material bodies "belonging to the lowest grade of structured societies which are obvious to our gross apprehensions."\(^3\)

In order to explain what is common to these relatively low-grade

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\(^1\)Ibid., p. 52.  
\(^2\)Ibid., pp. 52, 152.  
\(^3\)Ibid., p. 155; see p. 152 where Whitehead lists electrons and protons as probable structured societies.
societies and what it is that sets them off as a specific class of material non-living entities, Whitehead introduces the notion of an "unspecialized society." He recalls that every society must be considered within its environment of wider societies.\(^1\) It must conform to the pattern supplied by this environment. It must conform to the extent that the environment allows the emergence of this society, and it must conform in that "in proportion to its importance, this background must contribute those general characters which the more special character of the society presupposes for its members."\(^2\)

Whitehead then proceeds to differentiate between specialized and unspecialized societies on the basis of the degree of stability of the society in relation to changes in its environment. A society is an enduring entity and therefore Whitehead is attempting to explain how it is that societies survive changes in their environment. Now no society is totally stable or totally unstable, and so it is again a question of degree. Societies are stable in respect to a changing environment when they can persist throughout that particular type of change; they are unstable when they cannot.\(^3\) A complex society is "specialized" to the extent that its survival depends upon the environment retaining "certain features," namely, those special features required for survival.\(^4\)

Whitehead's point appears to be that because the society is highly complex, that is specialized, its very complexity tends to prevent it from easily adapting to changes in the environment.\(^5\) Take for example human beings. Here

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\(^1\)Ibid., p. 153. \(^2\)Ibid., p. 138. \(^3\)Ibid., p. 153. \(^4\)Ibid. \(^5\)Ibid., pp. 153-54.
we have the most complex society of which we are aware; but man pays the price by being the kind of thing that is extremely sensitive to relatively small changes in temperature, in atmospheric pressure, in acceleration, etc. In fact, man has a relatively short life span. "Unspecialized societies," on the other hand, can persist even "through important changes in their environment."¹ But they accomplish this feat by tending to be relatively simple. Thus whereas the life span of a man is measured in decades, that of the ordinary "lowly" rock is measured in hundreds of millions of years. Yet each survive in their own way, given what they are. Basically, then, what characterizes low-level structured societies, be they molecules or planets and suns, is that they are relatively unspecialized and therefore they tend to endure for very long periods of time.²

An initial explanation of how unspecialized societies can survive changes in their environment is that the defining characteristic of these material bodies is "flexible" or general enough to allow the society to adapt to the special circumstances of the moment.³ Whitehead further explains this "flexibility" in terms of the process of concrescence of the actual occasions making-up these societies. Due to enhancement of the mental pole, the actual occasions within these low-grade societies can elicit "a massive average objectification of a nexus, while eliminating the detailed diversities of the

¹Ibid., p. 153.  
²Ibid., p. 154.  
³Ibid., p. 153: "In general the defining characteristic of a society will not include any particular determination of structural pattern. By reason of this flexibility of structural pattern, the society can adopt that special pattern adapted to the circumstances of the moment."
various members of the nexus in question,"\(^1\) As we shall see in the following chapter, this will involve the category of transmutation. Whitehead makes it clear, however, that he is talking about a rather low level of mental activity. At this level, mentality is operating in accordance with the Category of Conceptual Valuation (4th Categorical Obligation)\(^2\)—as well as with Categorical Obligations 1-3 and 7-9.

This is, to be sure, "the first grade of ascent beyond the mere reproductive stage which employs nothing more than the Category of Conceptual Reproduction (i.e., Categorical Obligation IV)."\(^3\) But inasmuch as Conceptual Reversion (5th Categorical Obligation) is minimal or totally lacking in the process of concrescence, the emerging actual occasions forming the nexus are to that extent bound to reproduce or repeat their past.\(^4\) Granted there will be novelty, in that the mental pole has taken the initiative in "integrating" the many diverse conceptual prehensions into one unified nexus. Through negative prehensions, it has eliminated the diversities and abstracted the common defining characteristics. But without conceptual reversion, there cannot be that further mental activity whereby original conceptual prehensions introduce additional novel eternal objects for ingress.\(^5\) To the extent that conceptual reversion is unimportant, the complexities of the environment cannot be matched by the complexities in the process of concrescence. To this extent novelty and freedom are minimal. This is one of the ways which Nature solves

\(^1\)Ibid., p. 154  
\(^2\)Ibid., pp. 154-55.  
\(^3\)Ibid., p. 155.  
\(^4\)Ibid., pp. 384-86.  
\(^5\)Ibid., p. 155; cf. pp. 384-86.
problem of survival, of producing "societies which are 'structured' with a high degree of 'complexity,' and which are at the same time 'unspecialized.'"¹

This is the way of that group of very low level organisms classified as inorganic material bodies: Nature has produced organisms of maximal endurance coupled with minimal—relatively speaking—complexity, minimal novelty, and minimal freedom.

The other way Nature has of solving the problem of survival is by the evolution of societies of actual occasions for which initiative and originality in conceptual prehension is important. Rather than eliminating diverse details of the environment in negative judgments and thereby merely abstracting massive average objectifications, this other way involves the higher activities of mentality. As Whitehead says,

The purpose of this initiative is to receive the novel elements of the environment into explicit feelings with such subjective forms as conciliate them with the complex experience proper to members of the structured society. Thus in each concrescent occasion its subjective aim originates novelty to match the novelty of the environment.²

In terms of the process of concrescence, the "higher activities of mentality" involve the additional mental activity technically called "conceptual reversion." Thus whereas in the former mode endurance (of the society) is accomplished "without reversion" it is precisely in accordance with the additional 5th Categorical Obligation and the subsequent more complex or specialized mental activities that may accompany it that the higher forms of societies come to be and to survive.

¹Ibid., p. 154.
²PR., p. 155. Also see SMW, Chapter xiii, esp. pp. 288-91, 294-300.
On the basis of the role of mentality in the process of concrescence, Whitehead proceeds to define and distinguish the various kinds of structured societies. Living or organic societies are structured societies in which the latter mode of solving the problem of survival is important while non-living or inorganic societies are those for which the former mode of survival is important and the latter is unimportant.¹

The same basis is further used to distinguish the grades of organic societies. Just as there are various levels of inorganic societies, so there are levels of living structured societies. The lower living organisms are those for which conceptual initiative amounts to "thoughtless adjustment of aesthetic emphasis in obedience to an ideal of harmony."² The single living cell is an extreme instance of this low grade organism. What are called vegetables and the lower forms of animal life emerge as more sophisticated structured societies made-up of groups of cells combined in varying degrees of complexity. The difference between lower and higher vegetables, between higher vegetables and lower animals, and between lower and higher animals is similarly explained in terms of the degree of mentality and complexity of the process of concrescence evidenced by the actual occasions constituting the regnant society. When we come to the still higher grade organisms, the process of conceptual initiative has reached the stage of complexity that amounts to thinking about diverse experience;³ these latter high-grade organisms are

¹PR, p. 156.
²Ibid., p. 155.
³Ibid.
called men. Before turning to examine the structure of these latter high-grade "human" actual occasions, it will be useful to complete this discussion of the classification of nexus.

3. Whitehead's Actual Classification of Nexus

In order to do so it will be necessary to turn to those passages where Whitehead actually classifies societies into various grades. The important texts of Process and Reality where Whitehead is relating the classification of nexus on the basis of their member actual occasions has already been noted and commented upon. In addition, there are many passages in Modes of Thought where one will find a somewhat different classification. Actually several classifications of societies occur in Modes of Thought.

In the Modes of Thought, Whitehead explicitly appeals to the grades of mentality of individual actual occasions to distinguish the grades of macroscopic entities. He lists three levels: (1) the inorganic occasions studied by the physicist and chemist that evidence an extremely low level of mentality: "mentality is merely latent in all these occasions thus studied; (2) higher forms of life that exhibit a variety of significantly greater powers of mentality; and (3) the higher animals and man where there is "clear evidence of mentality habitually effective."

Now a nexus is derivative in actuality and therefore the degree of mentality of the macroscopic entity is determined by the degree of mentality

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1Ibid., pp. 269-70. See above: this chapter pp. 157-62 and 166-69.
of the actual occasions constituting the nexus. A society can be said to evidence a high degree of mentality when some of its member individual component occasions do. For example, a society is called "living" when it includes "living [actual] occasions as its dominant components."\(^1\)

Another important classification given in these 1933 lectures lists six types of occurrences in nature;\(^2\) (1) human existence, body and mind; (2) all sorts of animal life, insects, the vertebrates, and other genera; (3) all vegetable life; (4) single living cells; (5) all large scale inorganic aggregates, on a scale comparable to the size of animal bodies, or larger; and (6) all those infinitesimally small types characteristic of the subject matter of modern physics.

In a group of lectures delivered in 1937-1938 and published as Chapters I-VI of the *Modes of Thought*, Whitehead writes of the four types of "aggregations of actualities" presently found in our experience.\(^3\) These are (1) the inorganic, (2) vegetative, (3) animal, and (4) the human grade of animal life. Again,\(^4\) as with the previous text,\(^5\) Whitehead cautions against scientific precision when considering this question philosophically; the grades of nexus are not to be sharply distinguished, which is what enables Whitehead to present these somewhat divergent classifications. For, just as the division between living and non-living entities is not as clear cut as was previously

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\(^1\) *PR*, p. 156.  
thought, so also the distinction between vegetable and animal is not so sharp; and there is every graduation of transition between animals and men. Therefore given the context of the lectures Whitehead presents now one, now another classification; it is apparent, however, that these classifications are complimentary rather than contradictory and that by them Whitehead wishes to maintain that the entities so classified are in an important sense different in degree.

In addition to the above, there is the very general classification of macroscopic entities given in *Process and Reality*. As we have seen, Whitehead speaks of the macroscopic universe as an unimaginable complexus of nexus and societies. He contends that it is possible to discern the following types of macroscopic entities: the "society" of extensive continuum; the geometrical "society"; and the electromagnetic "society" forming our present cosmic epoch. Within this latter society are to be found the more special one, three, and four dimensional nexus and societies that together form Nature.

The macroscopic entities of Nature may be further classified on the basis of their component actual occasions from which they are built up. As we observed when following Whitehead's classification of actual occasions, it is possible to discern four great divisions of actuality. Thus macroscopic entities may be similarly classified. The lowest level of macroscopic entities are the inorganic objects of greater or lesser complexity such as sub-atomic

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1Ibid., p. 204. 
2Ibid., p. 34. 
3Ibid., pp. 37, 141. 
4PR, pp. 147-67. 
5Ibid., p. 139. 
6Ibid., p. 141.
particles and including the lowest grade unspecialized structured societies which are obvious to our direct apprehension, such as crystals, rocks, planets, and suns. 1 These societies are more-or-less complex, but they do evidence negligible powers of mentality. The first two grades of actual occasions 2 form the component members of these macroscopic objects. The next highest level of enduring objects are the lower grade living organisms such as single living cells, and vegetables. These low-grade specialized societies characterize a significantly greater type of novel activity called life. The "regnant" or dominant nexus within this living structured society is composed of the third grade of actual occasions. The third type of macroscopic entity are even more specialized and complex. Here the regnant nexus is composed of the fourth grade of actual occasions. We have arrived at the level of awareness found in animal life. This great division includes all the animals inasmuch as they exercise some degree of conscious awareness, in short, some degree of sense perception. Finally, Whitehead distinguishes human beings as a fourth and, as far as we know, final grade of macroscopic entity. A man is an extremely complex structured society whose dominant actual occasions take the special unique form of a unique personal soul. As we shall see in the following chapters, in man the bid for novelty which is the essence of life is coupled with intellectual consciousness.

On the one hand, Whitehead contends that these macroscopic entities differ only in degree. On the other hand, he also intimates that these entities

1Ibid., p. 155. 2Ibid., pp. 269-70; see above pp. 157-60.
can be grouped and that these groups signify nexus that also differ qualitatively inasmuch as their members manifest new and unique levels of actuality, of activity. For example, maintaining that the distinction between man and the animals "is in one sense only a difference in degree," Whitehead adds that the "extent of the degree makes all the difference. The Rubicon has been crossed." In another passage he says that although the difference between men and the other animals "is not absolute," It is also true that "when all analogies between animal life and human nature have been stressed, there remains the vast gap in respect to the influence of reflective experience...."

It is this difference in reflective experience that enables Whitehead to say that while animals enjoy structure (beavers build dams, birds build nests, etc), man "understands structure"; for man can abstract the principles in the facts and can imagine alternative possibilities. While animals know bodies fall, men formulate laws of falling bodies. But to understand in terms of principles is to begin to possess what have come to be called science and/or philosophy, and therefore Whitehead consistently adds that so far as we know "Science and Philosophy belong to men alone." Also, Whitehead acknowledges

1 MT, p. 38.  
2 Ibid., Underlining is mine.  
3 Ibid., pp.140-41.  
4 Ibid., p. 141. Underlining is mine.  
5 Ibid., pp. 104-05.  
6 AI, pp. 179-80.  
7 Ibid., p. 179; see FR, p. 65: Speaking of speculative Reason whose function is to "pierce into the general reasons beyond limited reasons, to understand all methods as coordinated in a nature of things only to be grasped by transcending all methods," Whitehead adds that "what distinguishes men from the animals, some humans from other humans, is the inclusion in their natures, waveringly and dimly, of a disturbing element, which is the flight after the
that only men enjoy civilization. Finally, what is perhaps at the basis of much of these differences between man and non-humans, is the fact that only man has language.

4. Summary Interpretation of this Classification

The above section can now be summarized and interpreted as follows. Whitehead maintains both that all societies differ from one another only in degree and also that they fall into broad classes which can be hierarchically ordered. The four main classes of societies seem to be human, animals other than men, plants, and non-living entities. This writer's interpretation of these texts should now be somewhat obvious. A strong argument can be made for interpreting Whitehead to mean that upon the basis of our present scientific knowledge we can maintain that with the emergence of man a critical threshold has been crossed so that it is possible to speak of man's unique activities such as intellectual abstraction and human freedom and moral responsibility properly so called. It is probable—again given the present status of our knowledge of the facts—that the other three classes of societies can be similarly differentiated. Within these classes, however, individuals differ from each other only in degree, i.e., their differences do not amount to crossing a critical threshold.

unattainable. This element is that touch of infinity which has goaded races onward, sometimes to their destruction."

1\textsuperscript{MT}, pp. 4-5; also see pp. 162-64; \textit{AI}, p. 62.

2\textsuperscript{MT}, pp. 44-57; also see \textit{S}, Chapter iii, pp. 60-88.
Furthermore, the "reason" for these differences on the macroscopic level is to be found in the differences on the microscopic level. Men differ from animals and all the other kinds of societies, because some of the actual occasions that constitute and dominate the super-complex society that is a man are similarly different from those that constitute and dominate other societies, and so on down through the grades of societies and nexus. This interpretation is consistent with the Ontological Principle and with Whitehead's insistence that the being of a nexus is derivative from the being of its member actual occasions. Precisely because they are derivative, the freedom manifested by macroscopic organisms is "built-up" from the freedom of their member actual entities. Here too, one can differentiate the kinds of freedom manifest by macroscopic organisms on the basis of the kinds of freedom evidenced by the member actual entities, and this differentiation exactly corresponds to the above classifications: all actual occasions are free, but differing in degree across discernible critical thresholds they exercise a uniquely higher level of freedom. Consequently, the human person will be found to exercise a higher and unique kind of freedom.

To point out man's place at the top of a hierarchy of macroscopic organisms is not to have fully shown how Whitehead intends to explain the nature of his uniqueness. Yet such an explanation in terms of his microscopic composition is required in order to specify precisely the uniqueness of human freedom. The following chapters will be addressed to clarifying Whitehead's position concerning the nature of man and the place of human freedom in the macroscopic scheme.
CHAPTER IV

FREEDOM IN THE MACROCOSMIC UNIVERSE

In the previous chapter, we examined the principles used to establish the hierarchy of macroscopic entities and noted man's unique place at the summit of this classification. The purpose of this and the following chapter is to develop a Whiteheadian explanation of human freedom. We will show that Whitehead's analysis is meant to explain the fact that human beings exercise a unique mode of freedom, a freedom which, so far as present research can determine, is not to be found in lower macroscopic organisms such as the higher "brute animals." This higher mode of freedom is such that it is meaningful to speak of human beings as responsible, moral entities. That is to say, their mode of self-determination takes the form of freedom of choice commonly and properly so called.

In the first section of the present chapter, we will summarize Whitehead's discussion of human nature. We wish to specify more precisely than was indicated in the previous chapter how Whitehead would have us understand the nature of human beings in his philosophical system. As we will see, man is
taken to be a highly complex society manifesting a unique type of unity and organization. The explanation of this fact is to be found in the types of actual occasions "constituting" this macroscopic organism. The source of his unity and organization, which in its higher manifestations takes the form of self-conscious, end-directed activity, is to be found in the regnant actual occasions constituting man's soul.

For this reason it is necessary to develop Whitehead's explanation of the unique mode of conscious freedom evidenced by these regnant occasions and to indicate how their freedom affects the freedom of the human being, that is the macroscopic organism taken as a whole. This entails an analysis of their highly complex process of concrescence. Because consciousness arises in the later phases of concrescence of high-grade actual entities\(^1\) and because every subsequent phase presupposes the prior one(s) which it integrates,\(^2\) it is essential that we investigate the various stages in the unique process of concrescence of the regnant actual occasions of man.

In the remainder of Chapter IV we will specify the nature of this uniqueness throughout the process—up to but not including the final emergence of a high-grade human consciousness and freedom of choice. In the second section of the chapter we will examine the freedom associated with "perception in the mode of causal efficacy" which occurs with the initial phase of concrescence. We will see that for the regnant occasions constituting man this mode of perception accounts for the origin of our lived experience of self-identity and oneness with our bodies throughout a lifetime. As such, it establishes

\(^1\)PR, p. 362. \(^2\)PR, p. 250.
a basis for the very possibility of human freedom on the macroscopic level.

In the third section of Chapter IV "perception in the mode of presentational immediacy" is introduced. The importance of this level of experience is that it is Whitehead's categorial explanation of how individual actual entities are capable of experiencing the macroscopic world of stones, trees, dogs, and men. Its importance for human freedom is that with it the subject is able to isolate and vividly prehend clear and distinct groups of actual occasions in its immediate contemporary environment, and, as a consequence, is able to freely form definite bounds of relationship with these macroscopic entities. Thus begins the passage to macroscopic freedom in the higher grade regnant occasions of animals and men.

Yet perception in the mode of presentational immediacy does not mark a significant advance in mentality apart from its integration within a subsequent and higher mode of perception, that of "symbolic reference" arising still later in the process of concrescence. As we will see in the fourth section, it is with symbolic reference that Whitehead offers his explanation of the emergence of conscious mental activity. When the difference in the various kinds of propositional data required for symbolic reference are noted, we will see that there is a basis within Whitehead's analysis for explaining the uniquely higher kind of consciousness associated with human freedom properly so called.

A. Human Nature: An Introduction to the Discussion of Human Freedom

It is difficult to agree with John Cobb's interpretation that Whitehead
identifies the man with his soul. As Cobb acknowledges, Whitehead maintains that like the other real actual things that endure, a man is a society, albeit an unusually complex one. He is in fact a highly "specialized" society of societies manifesting extreme complexity and diversity of parts as well as

1Cobb says that according to Whitehead "man has, or is a soul." (Christian Natural Theology, p. 47.) He also refers the reader to a single passage, PR, p. 141, without quoting the passage, for support of his contention that "he [Whitehead] himself ordinarily identifies the man with the soul." Ibid., pp. 65-66 and n. 48. The writer of this dissertation would argue that Whitehead neither implies such an identification, nor, contrary to Cobb's suggestion, that Whitehead explicitly affirms it. There is simply no way of interpreting PR, 141 as directly stating or indirectly implying that the term "man" is to be taken as synonymous with the term soul. Furthermore, there are many texts where Whitehead explicitly affirms that what we ordinarily mean by man is "more than" what "person" or even "living person" means in his system. Also we understand Whitehead as wishing to follow ordinary usage in this instance. Outside of God, to be a living person in Whitehead's system necessitates basically three distinct kinds of nexus: (1) the regnant nexus, which is the "person"; (2) the non-social nexus within the brain, which supports the regnant nexus and which is the principle of life of the person and of the organism taken as a whole; and (3) the entire animal body upon which the first two nexus depend for their very being and which is the structured society supporting these two nexus.

See Donald Sherburne, "Whitehead's Psychological Physiology," The Southern Journal of Philosophy, VII, No. 4 (Winter, 1969-1970), pp. 401-07. As Sherburne's paper implies, without an animal body there could be no human person. However else men might exist, if, for example they are immortal, so far as we can understand his condition here and now, according to Whitehead it appears necessary to acknowledge that man is this totality of body and soul which is the complete living person.

Cobb is giving his interpretation of Whitehead, which is admittedly most interesting and demanding of serious consideration by Whiteheadian scholars. But his is an interpretation which, it seems to this writer, cannot be easily reconciled either with other important texts or with what appears to be Whitehead's intent namely to show that the common sense pronouncements of mankind concerning this point are fundamentally correct.

2AI, p. 262.
a unique type of unity. Whitehead is well aware that what must be accounted
for, philosophically speaking, is how nature has combined these seemingly di-
verse elements: personal self-identity with complexity and diversity of parts
throughout a lifetime. For Whitehead seems to have never seriously doubted
either (1) that a man is one and the same person from birth to death, or (2)
that he is a unity composed of a body and a mind—or soul. That is to say, the
human person is both one and many, a unity composed of diverse orders of parts
spread spatially and temporally. Contrary to the suggestion of Cobb, it must
be emphasized that in support of the lived fact that a person is a unity of
body and soul existing throughout a lifetime and against the views proposed
by Descartes, Hume and Kant in their speculative systems, Whitehead explicitly
calls upon the common sense pronouncements of mankind, upon a phenomenological
analysis of self-experience, as well as upon the latest findings of psychology
and the other sciences. Here too as with the more specific question concern-
ing human freedom it appears that Whitehead begins philosophically by never
seriously doubting the fact. For him the question is how to give a philosoph-
ical explanation of the lived fact of both the unity and diversity of human
experience, including as has already been seen, the important fact of human
freedom.

1Ibid., p. 239.
2Ibid., pp. 242-43; Immortality, §§VII-IX, Philosophy of Alfred North
Whitehead, ed. by Schilpp, pp. 688-90.
3AI, pp. 231-36. Also see AI, pp. 209-11, 243-44; MT, pp. 219-21, 155-
61, 218-23; S, pp. 39-49.
4AI, p. 243; 157-67.
One of Whitehead's strongest statements concerning the experiential fact of composition of the human being occurs in Adventure of Ideas, where he has just introduced the notion of a special kind of society technically called a "person." As we have observed, Whitehead offers as an example of such a society a human being considered as a set of contiguous actual occasions causally related in a one-dimensional serial order. Whitehead observes that this definition exactly corresponds to Descartes' definition of a thinking substance /Principles of Philosophy, I, XXI and Meditations, III/. However, Whitehead immediately adds that it is not the ordinary meaning of the word "man." The difficulty is, that it ignores man's body. But as Whitehead says, there are animal bodies as well as animal minds; and in our experience such minds always occur incorporated. Now an animal body is a society involving a vast number of occasions spatially and temporally coordinated. It follows that a 'man' in the full sense of ordinary usage, is not a 'person' as here defined. He has the unity of a wider society in which the social coordination is a dominant factor in the behaviours of the various parts.

A closely related difficulty arises when Descartes attempts to explain the self-identity of a man through time. Locating the personality of man in the soul conceived as a self-conscious substance, Descartes is forced to introduce God in order to account for the adventures of the soul throughout a lifetime. God and God alone must be thought to constantly recreate the soul because at any moment the soul is in itself complete, unchanging, and essentially and existentially unrelated to anything else, even "its" prior and future "selves." To Whitehead, Descartes has thus failed to allow adequately for the fact that we do experience our "present self" as a unity of body and mind and as causally derivative or determined by our "prior self" and as determining

1Ibid., p. 263.  
2AI, pp. 263-64.
our "future self"—though to be sure God will be operative in this "process of endurance." Whitehead's most telling attack upon Descartes, as well as Hume and Kant, is, in fact, that they have failed to recognize the primitiveness, immediacy, and irreducibility of the experience of "non-sensuous perceptions" which are at the origin of our feelings of this unity. Descartes with his search for clear and distinct ideas, Hume with his doctrine of clear and distinct high grade sensations, and Kant with his a priori forms of sensability and of the understanding have each in their own way denied the primitiveness and hence the radical importance of non-sensuous perceptions. As a consequence they have failed to give an adequate and/or coherent explanation of a man's personal identity through time and of his experience of unity through this time with his body. Responding to this modern tradition Whitehead maintains that not only are there what Whitehead calls perceptions in the mode of "causal efficacy," perceptions of a non-sensuous nature, but that "the most compelling example of non-sensuous perception is our knowledge of our immediate past." Analogous to this is an experience of our oneness with our bodies. As Whitehead says, "There is thus every reason to believe that our sense of unity with the body has the same original as our sense of unity with our immediate past of personal experience."

1MT, p. 155; PR, pp. 9-10, 218-20.
2Ibid., pp. 152-55. Also see S, pp. 30-36; PR, pp. 198-217, 238-53, 263-70.
4AI, pp. 232-33; PR, p. 125; MT, pp. 218-19.
5AI, p. 243; PR, 125; MT, pp. 155-58, 218-25. For a fine summary of
What Cobb acknowledges but then seems to disregard is the fact that though the personal society—alternatively called the soul or mind—is a society in its own right, it nonetheless depends for its very being and activity on a non-social nexus in the brain, and indirectly on the nexus and societies which are the brain and nervous system, and more indirectly upon the even larger numbers of organic and inorganic subordinate structured societies which together constitute the rest of man's body.

Let us begin with the man's body. It is Whitehead says, made up of millions upon millions of cells, and since all the life in the body is in the life of the individual cells, the body can be conceived as being composed of millions upon millions of centers of life.


2. *AI*, p. 271; *PR*, p. 213.

3. See Howard W. Hintz, "Whitehead's Concept of Organism," *Dimensions of Mind*, ed. Sidney Hook (New York: Collier Books, 1961), pp. 97-105. While we agree with Hintz's thesis that as far as we have any direct knowledge of the mind it must be maintained, according to Whiteheadian principles, that it is "in its natural-human manifestations, inseparably associated with and dependent upon the physical organism known as the body," (p. 101) we do not agree with another part of his paper. Hintz goes on to say that "if mind permeates the whole of reality the existence of it in animate objects does not differentiate these objects in kind from any other natural phenomena, but only in degree." (p. 103). We have argued, of course, that they can be adequately differentiated as unique differences emerging with the crossing of critical thresholds.

On the other hand, this does not deny the possibility of some "mind(s)" existing apart from a body. However, we are discussing the ordinary meaning of human person, and the point is that our direct experience is of societies composed of a body and mind.

society itself made-up of space, the subordinate nexus wherein lurks the life of the cell,¹ and subservient or subordinate inorganic societies such as molecules,² the latter themselves being made-up of electrons, protons, etc. The millions of cells in turn form larger societies of cells, of blood, and of bones,³ of flesh, of organs such as the arteries, the heart, the liver, the eye, and so forth. It is important to understand that these conglomerations of cells form more complex societies each in turn more-or-less capable of exercising its own unifying control over its members. Thus the bones can exist separated from the body for a very long period of time, and even the heart, given the proper stimulants, "can be made to go on beating after it has been taken out of the body."⁴

Within the body, however, these parts manifest themselves precisely as parts, that is as members of a greater whole, as ultimately coming under the control and sustenance of some central organ for the good of the entire organism. This organ of central control in man is the soul located in man's brain.⁵ Its importance to the organism as a whole is seen in the fact that should this central organ be severed from the rest of the body or be otherwise sufficiently damaged, the whole organism which is the man would collapse,⁶ and with this collapse the subordinate societies would revert to their simpler modes of existence. Those societies and nexus which require the environment of the whole complex would cease to be. Thus in the case of eyes and other

¹Ibid., pp. 161, 516. ²Ibid., pp. 151-52. ³Al, p. 264.
⁴PR, p. 165; MT, pp. 34-36. ⁵Ibid., p. 166; MT, p.42. ⁶MT, p. 34.
more specialized subordinate societies and subordinate nexus which ultimately require the specialized environment of the whole organism, these too would cease to exist, and with this dissolution the component members would return to their simpler modes of existence.

What distinguishes man among all the macroscopic organisms, then, is that in him untold millions of centers of life are coupled with an extreme and unique kind of unifying force which is the personal society of actual occasions supported within the non-social nexus in his brain. The human grade animal body manifests one central actuality and this has as its source within the living personal soul which supports and in turn is supported by the intricacy of bodily functionings:

It is by reason of the body, with its miracle of order, that the treasures of the past environment are poured into the living occasion. The final percipient route of occasions is perhaps some thread of happenings wandering in 'empty' space amid the interstices of the brain. It toils not, neither does it spin. It receives from the past; it lives in the present. It is shaken by its intensities of private feeling, aversion or aversion. In its turn, this culmination of bodily life transmits itself as an element of novelty throughout the avenues of the body. Its sole use to the body is its vivid originality: it is the organ of novelty.¹

¹PR, p. 516. "Thus in an animal body the presiding occasion, if there be one, is the final node, or intersection, of a complex structure of many enduring objects. Such a structure pervades the human body. The harmonized relations of the parts of the body constitutes this wealth of inheritance into a harmony of contrasts, issuing into intensity of experience. The inhibitions of opposites have been adjusted into the contrast of opposites. The human mind is thus conscious of its body inheritance. There is also an enduring object formed by the inheritance from presiding occasion to presiding occasion. This endurance of the mind is only one more example of the general principle on which the body is constructed. This route of presiding occasions probably wanders from part to part of the brain, dissociated from the physical material atoms. But central personal dominance is only partial, and in pathological cases is apt to vanish." (PR, pp. 166-67). Also see AL, p. 271.
The high-grade body and the personal soul together elicit that higher form of novelty that gives the human action, at least in its higher expressions, its unique character:

When we come to mankind, nature seems to have burst through another of its boundaries. The central activity of enjoyment and expression has assumed a reversal in the importance of its diverse functionings. The conceptual entertainment of unrealized possibility becomes a major factor in human mentality. In this way outrageous novelty is introduced, sometimes beautified, sometimes damned, and sometimes literally patented or protected by copyright. The definition of mankind is that in this genus of animals the central activity has been developed on the side of its relationship to novelty. This relationship is two-fold. There is the novelty received from the aggregate diversities of bodily expressions. Such novelty requires decision as to its reduction to coherence of expression.

Again there is the introduction of novelty of feeling by the entertainment of unexpressed possibilities. This second side is the enlargement of the conceptual experience of mankind. The characterization of this conceptual feeling is the sense of what might be and of what might have been. It is the entertainment of the alternative. In its highest development, this becomes the entertainment of the Ideal. It emphasizes the sense of Importance....And this sense exhibits itself in various species, such as, the sense of morality, the mystic sense of religion, the sense of that delicacy of adjustment which is beauty, the sense of necessity for mutual connection which is understanding, and the sense of discrimination of each factor which is consciousness.1

Whitehead observes that with man unification reaches the extreme, and yet it is not absolute; for even here there is evidence of dissociation of personality as well as various forms of multiple personalities.2 Furthermore, he contends that other macroscopic entities evidence a similar unity, though not of the extreme nature which appears in man. Thus from one point of view he is unwilling to extend the notion of living personality below the level of very high-grade living organisms;3 on the other hand it does appear to be a

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1MT, pp. 36-37.  
2PR, p. 163-64.  
3For instance, Whitehead says that in the case of the single cell, the
question of degree, for from another perspective if we do not presuppose the extreme form of personal order evidenced in man, we can indeed "conjecture, though without much evidence, that even in the lowest form of life the entirely living nexus is canalized into some faint form of mutual conformity."¹

Below the level of living organisms are those entities whose members form mere aggregations of actual occasions evidencing at most sporadic and ineffective flashes of novelty and coordination. These lowly macroscopic structures survive by stifling rather than coordinating the individuality of their members and by eliciting a mere average formal character.² Again, these two tendencies in Whitehead's thinking—namely his unwillingness to limit a unifying factor to human beings and his unwillingness to deny its special exemplification in man—can be synthesized, we think, by the introduction of the idea of the "critical threshold."

vegetables, and the lower forms of animal life "we have no grounds for conjecturing living personality. But in the case of the higher animals there is central direction, which suggests that in their case each animal body harbours a living person, or living persons." (PR, p. 164.) Also see PR, pp. 158-59.

¹PR, p. 164. A similar remark occurs in AI, p. 264: "Also when we survey the living world, animal and vegetable, there are bodies of all types. Each living body is a society, which is not personal. But most of the animals, including all the vertebrates, seem to have their social system dominated by a subordinate society which is 'personal'. This subordinate society is of the same type as 'man', according to the personal definition given above, though of course the mental poles in the occasions of the dominant personal society do not rise to the height of human mentality. Thus in one sense a dog is a 'person', and in another sense he is a non-personal society. But the lower forms of animal life, and all vegetation, seem to lack the dominance of any included personal society."

²MT, p. 38.
Briefly put, man is unique in that this most complex of macroscopic organisms evidences an extreme degree and therefore a unique kind of centralized activity. The reason for this uniqueness is to be found in the society of regnant actual occasions that unifies this vast organism, and given the ontological principle and the derivative status of nexus, it is ultimately grounded within the very constitution of these individual member actual occasions: in other words, the reason for this uniqueness is to be found in the individual members of the human soul. What must now be examined is how the actual occasions that constitute man's soul differ from those that do not, and inasmuch as every actual occasion is free, how these occasions are uniquely free and thereby ground that macroscopic freedom manifest by the human organism taken as a whole, body and soul.

Actually Whitehead's formal explanation of this difference has already been noted in the previous chapter—at least in its general form. In a number of texts Whitehead claims that whereas all actual occasions exercise perception in the mode of "causal efficacy," not all experience "presentational immediacy," while still fewer exercise "symbolic reference" and the higher degree of mentality commonly designated as intellecction properly so called. Moreover, the higher kinds of perception and intellection presuppose and include the lower. Now the regnant actual occasions that constitute the living person are unique precisely in that they manifest these higher levels of mentality, so that what remains to be examined is the nature of the process of concrescence which characterizes these extremely high grade actual occasions. Because all subsequent phases of concrescence presuppose the antecedent one(s)
upon which they build, it is necessary to observe the process whereby high
level human freedom comes to be "built-up" through the regnant occasion's en-
tire process of concrescence, beginning with the initial phase and culminating
in satisfaction at, or rather with, the final phase.

B. Freedom and Perception in the

Mode of Causal Efficacy

"Perception in the mode of causal efficacy" is an experience or "ap-
propriation" by the emerging subject of past actual occasions that causally
determine the subject. This causal determination occurs with the initial or
receptive phase of concrescence. Every actual occasion emerges with this
initial phase and so Whitehead says that "we must assign the mode of causal
efficacy to the fundamental constitution of an occasion so that in germ this
mode belongs even to organisms of the lowest grade...." Whitehead character-
izes this mode of perception in a passage where he applies the categorial
scheme to human experience. Nonetheless, this ought to be read so as to
extend to all occasions of experience down to the lowest grade actual occa-
sions. Perception in the mode of causal efficacy can be characterized very
generally as productive of percepts

which are vague, not to be controlled, heavy with emotion: it produces
the sense of derivation from an immediate past, and of passage to an im-
mediate future; a sense of emotional feeling, belonging to oneself in the
past, passing into oneself in the present, and passing from oneself in the

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1PR, p. 273: "The mode of efficacity belongs to the responsive phase, in which the objectifications are felt according to their relevance in the datum...."

2Ibid., p. 261.
present towards oneself in the future; a sense of influx of influence from other vaguer presences in the past, localized and yet evading local definition, such influence modifying, enhancing, inhibiting, diverting, the stream of feeling which we are receiving, unifying, enjoying, and transmitting. This is our general sense of existence, as one item among others, in an efficacious actual world.¹

Several things should be noted concerning this passage. First, Whitehead explicitly rejects the idea that the data given in this initial stage of prehension are clear and distinct: they are neither clearly and distinctly perceived nor clearly and distinctly conceived. As we shall see, animal sense perception and human intellectual cognition arises as subsequent phases in the process of concrescence.² Second, the past actual occasions are no longer and therefore they cannot be controlled. More than that, precisely inasmuch as the data are given they must be reacted-to in terms of what they are; which is to say that more importantly the data qua data cannot be controlled. They are the initial limit placed upon the subject's freedom. Third, the multiplicity which constitutes the data are unified in one experience. The data themselves are brought together in a new synthesis which is the novel actual occasion. At this stage the unity is an ideal originating from the subjective aim in the initial phase of concrescence. Subsequent phases will render the ideal real. This latter fact which is the new synthesis has as its source the intrinsic self-determining factors of the subject. Finally, because the subject emerges from the past and will pass into the future its initial experience—to repeat, its non-conscious experience—involves a feeling of being-in-the-

¹Ibid., p. 271; also see 246-49, 262, 179-82, 185; S, pp. 43-49.
²Ibid., pp. 178-79
world, of being one-among-many.

What has been said thus far concerning causal efficacy applies to every actual occasion and therefore to all the actual occasions constituting the untold billions upon billions of societies and nexus within and without man. We can begin to understand what differentiates the regnant actual occasions of man in the initial phase of concrescence when we recall that the personal society which is the "soul" resides in the living non-social nexus within the brain. Sherburne has convincingly argued that this personal society is not something other than, something overlapping, the non-social nexus, but rather that its individual entities are some of the various member occasions that constitute the non-social nexus. From this it follows that the conception of the human soul must be extended to embrace part of the living non-social nexus of which it is a part, and that the soul of man is better understood to be a "living person": living inasmuch as it is part of the central living non-social nexus within the brain and person inasmuch as it is a personally ordered society within that nexus.

To the question "what differentiates the regnant actual occasions of man's soul?" we can answer, that initially the difference is to be found in the soul's unique data. Recall what Whitehead has said:

It is by reason of the body, with its miracle of order, that the treasures of the past environment are poured into the living occasion. The final percipient route of occasions is perhaps some thread of happenings wandering in 'empty' space amid the interstices of the brain.

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1 Ibid., p. 168. 2 "Whitehead's Psychological Physiology," p. 405. 3 See this chapter p. 199.
For the immediate environment of the soul is the brain and indirectly through the brain its environment extends to the whole of the animal body. Whitehead will even add that it is difficult to delineate exactly where the body leaves off and the external world begins,\(^1\) which is to say that its remote environment extends even beyond the body to external nature. Consequently the initial data given in the first stage of concrescence and causally determining the emerging living personal occasion is the outcome of an unimaginably complex pattern of past actual occasions, many of which are high-grade occasions and are themselves highly complex data.\(^2\) This is the body exercising its causal efficacy "in" the soul.

The present "regnant actual occasion"—if we may so term it—within the soul also prehends the antecedent occasion in the personal society. What is peculiar about this causal transition is that besides physical prehensions it also gives rise to "hybrid prehensions." Hybrid prehensions may be defined as the "prehension by one subject of a conceptual prehension, or of an 'impure' prehension, belonging to the mentality of another subject."\(^3\) Now the hybrid physical feelings whose data are temporal actual entities give rise—in the second phase of concrescence—to a conceptual feeling within the subject having the same data as that of the conceptual feeling of the antecedent subject. The result is a significantly heightened intensity of conceptual feeling.\(^4\) Ultimately these hybrid prehensions are meant to explain the emergence of the

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\(^1\) MT, pp. 29-30, 155-56; AI, pp. 289-90.

\(^2\) PR, pp. 365-66.

\(^3\) Ibid., pp. 163, 376, 469.

\(^4\) Ibid., pp. 376-77.
higher grade mentality associated with living persons.

The defining characteristic of a living person is some definite type of hybrid prehensions transmitted from occasions to occasion of its existence... By this transmission the mental originality of the living occasions receives a character and a depth. In this way originality is both 'cannalized'—to use Bergson's word—and intensified. With it, personal mentality can be evolved, so as to combine its individual originality with the safety of the material organism on which it depends. Thus life turns back into society; it binds originality within bounds, and gains the massiveness due to reiterated character.1

It should be noted that although it is possible to analyze these two divergent sources of data, in fact they converge in the subject as hopelessly intermixed and therefore only rarely do immediate hybrid prehensions have sufficient vividness to receive a subjective form of clear conscious attention.2

Finally, included within these initial data is a hybrid physical feeling of God which, as has been noted, determines in the manner of a final cause. He determines by being a source of the initial "givenness" of the subjective aim.3 Yet God is also the extrinsic source or cause of freedom inasmuch as He offers a set of real alternatives or possibilities—potentialities—from which the subject can freely choose. Because God functions in conjunction with an extremely high grade subject, the form taken by this Lure will be appropriately different. To anticipate what will be developed shortly let it be said that for the living person these possibilities will be able to be grasped as possibilities in their abstract generality.

Important consequences relating to the nature of human freedom follow

1Ibid., p. 163.  
2Ibid., pp. 469-70.  
3"Apart from the intervention of God, there could be nothing new in the world, and no order in the world." (PR, p. 377.)
from Sherburne's interpretation of the nature of the personal human soul.

Now conceived as the "living personal society" inhabiting the brain, the soul must be thought of as consisting of actual occasions each of which originate with two divergent but converging sources of past data: each member actual occasionprehends in the mode of causal efficacy (1) its immediately antecedent occasion—which accounts for our immediate experience of oneness or personal self-identity through time; and (2) the past occasions of the animal body—which accounts for our immediate experience of unity with our bodies.

Taken together these routes of experience are the source of our feeling of oneness with our bodies and our personalities through a lifetime, and consequently they are the ultimate reasons grounding the pre-philosophical experiences noted in Chapter I, namely, that of performing an action in time: as, for example, of withdrawing money from a bank. Precisely as such, these will also be offered as the ultimate philosophical explanations for the possibility of there being a free human act or moral act in the first place. It will make sense to prosecute the bank robber who unlawfully withdraws money because he is thought to be undoubtedly the same person—body and soul—who planned and executed the crime and who now stands before his peers as judged, blamed, convicted, and awaiting punishment.

This is not to imply, however, that consciousness arises with causal efficacy. On the contrary, it must be emphasized that consciousness emerges only later in the process of concrescence of high-grade actual occasions. Moreover, self-consciousness such as is implied in our reflective awareness of

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1See Chapter 1, pp. 18-19.
our basic oneness with ourselves—body and soul—throughout a lifetime and in our free choices emerges still later in the process and, so far as we know, only in the highest regnant actual occasions such as those constituting the living human person. One distinguishing characteristic of these latter high-grade occasions in the first phase of concrescence, then, is that even their initial derivation from the past can come to be the subject of conscious awareness. Thus it is possible, though with some effort, to become consciously aware of my initial feelings of growing out of the past and into the present.

However, self identity and unity with one's body throughout time, are only two conditions required for a moral act, though to be sure these are most important ones. Again following ordinary experience, but also allying himself with the general consensus of the classical Western philosophical tradition, Whitehead is well aware that the other conditions for the moral situation, i.e. for the very possibility of praise and blame, reward, and punishment, of what is often generally summarized under the phrase "moral responsibility," are that the man's act proceed from knowledge and be performed freely. These latter characteristics will also be explained in terms of the unique kind of actual occasions that are the "living person," for it appears that man alone of all the macroscopic entities exercises intellectual knowledge and therefore moral freedom or freedom of choice properly so called. In order to continue this analysis of human freedom, it will be necessary to trace the activity of mentality in the supplemental phases of concrescence.
C. Freedom and Perception in the Mode of

Presentational Immediacy

In a subsequent phase of concrescence of higher grade actual occasions what was originally experienced as a vague welter of past actual occasions comes to be grasped as well defined, distinct, contemporary macroscopic entities. Whitehead explains this transformation in our experience in terms of "perception in the mode of presentational immediacy." Its importance for understanding the emergence of human freedom is that it is meant to explain (1) how we perceive—and thus conceive of—"the world of macroscopic entities, and (2) how we can consequently exercise freedom of choice in regards to them.

That is to say, it is the beginning of Whitehead's explanation of our experience of freedom in the macroscopic world: as when a man is free to rob a bank.

Presentational immediacy arises in a later phase of concrescence and presupposes a series of mental activities that occur with the second phase of concrescence. In order to explain these activities, it will be necessary to introduce briefly Whitehead's discussion of the 4th, 5th, and 6th "Categoreal Obligations," the categories of "Valuation," "Reversion," and "Transmutation" respectively. Their relevance to our discussion will emerge as we proceed.

Though the mental pole is inseparable from the physical pole,¹ the former originates with the second phase of concrescence as the conceptual counterpart of operations of the physical pole.² Within this relatively simple second phase, the higher grade subject further unifies its data in accordance with the 4th, 5th and 6th "Categoreal Obligations." These acts of synthesis

¹Ibid., p. 379.  
²Ibid., pp. 139, 379.
and integration, technically called "contrasts," originating with the activity of mentality are initiated by acts of "negation" or "elimination"—and are thereby grounded in the activity of creativity and the formality of the eternal objects "within" the subject. While the process of synthesis requires greater complexity of activity within the process of concrescence, nevertheless this process also appears to be a movement towards greater abstraction, simplification and unification of the data. As Whitehead says when speaking of these contrasts,

Thus 'contrast'—as opposite of incompatibility depends on a certain simplicity of circumstance; but the higher contrasts depend on the assemblage of a multiplicity of lower contrasts, this assemblage again exhibiting higher types of simplicity.

As we shall see—especially in Chapter V—with man unification in its higher expression amounts to the creation of intelligible systems of interpretation in the speculative order and to artistic, social, and moral activity in the practical order.

1. 4th Categorical Obligation: Conceptual Valuation

Although negative prehensions have eliminated the incompatible data initially given in the first phase of concrescence, there is an important sense in which further eliminations or simplifications or "negations" occur aiming at novel coherent synthesis or unification of the data. Because the feelings of the initial phase are compatible for integration, the supervision of the

1Ibid., p. 33.  
2Ibid., p. 145.  
3See the "Category of Subjective Unity," PR, p. 39.
subsequent phases do not involve elimination by "negations" if this is taken to mean that the subject eliminates the data positively prehended in the initial phase. For on this supposition, the metaphysical unity required for the existence of an actual occasion would be destroyed and the actual occasion would cease to be: "the concrescent subject would divide into that subject and many subjects, and would divide these many subjects from the superject."\(^1\)

This does not mean that "negations" or "eliminations" do not occur subsequent to the initial phase of concrescence, but that subsequent "elimination" must be from some new integral feeling which is only one component of that particular phase.\(^2\) In addition, these subsequent "eliminations" will also contribute their subjective forms to the final unified subjective form which is the subject in its phase of satisfaction. In the second phase Conceptual Valuation is initiated by an elimination whereby the eternal objects originally prehended as concretized "in" the physical datum—as concrescent—are now "abstracted" as pure potentials capable of being further integrated in subsequent phases of concrescence.\(^3\) At this stage, the process is a movement from the concrete to the abstract, from the actual to the potential, from the temporal to the eternal. It is a reaction from something which is positively and definitely given, namely, the data positively prehended in the receptive stage; also, it culminates in something most definite and positive, namely a form

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\(^1\)Ibid., p. 368.  
\(^2\)Ibid.  
\(^3\)At, p. 270. See Sherburne, A Whiteheadian Aesthetic, p. 50. Sherburne's excellent analysis (pp. 41-88) of the phases of concrescence has been most helpful for this and the following discussions concerning the phases up to and including the high-grade human mode of concrescence.
of definiteness, and eternal object supplied by God\(^1\) and positively prehended as potentially concrescent.

It follows that because Valuation is the conceptual counterpart of physical prehensions of the initial data, its uniqueness in the case of the human person will exactly correspond to the uniqueness found in the data. Mentality will be proportioned to the highly complex data which it can abstract and subsequently unify and therefore the Valuative feelings—either aversion or aversion\(^2\)—will be similarly more complex.

2. 5th Categorical Obligation: Conceptual Reversion

With slight modifications what was said of Valuation also supplies where the data is a hybrid physical feeling of God. The difference is that the conceptual feeling is a reverted feeling and is of an eternal object both similar and dissimilar to the eternal objects immanent in the prior physical feeling. The effect of reverted conceptual feelings is that with them relevant alternatives and therefore proximate potentialities of novelty are introduced, and "the subsequent enrichment of subjective forms, both in qualitative pattern, and in intensity through contrast is made possible...."\(^3\)

Because the reverted feelings necessarily contain elements partially identical with elements in the feelings of the antecedent phase, it follows that even where novelty is extreme, as in the case of dominant actual occasions within man, novelty is nevertheless not unlimited. It also follows that the

\(^1\)AI, p. 270.  
\(^2\)PR, pp. 368-69, 378-79, 388-89.  
\(^3\)Ibid., p. 381.
causal activity of God is limited, for His Lure is always within a context of the total data within which the subject emerges. God too must do the best he can, given the past state of affairs, and this is true especially where He is determining the concrescence of other actual entities. None the less, what is equally significant is that with reversion additional potentiality for novelty is introduced into the process, for as "dissimilar" the reverted feeling is defined in terms of not-being what the eternal object of the valuated feeling is—or would be, were only valuation to occur. The importance of reverted feelings is that with them God supplies novel potentialities for ingress and thereby supplies the concrescing subject with a definite alternative or set of alternatives toward which it can direct its reaction from its past. In a manner of speaking, God thereby saves the creative advance within this individual subject from passing into mere negation and total nothingness (simple non-definiteness).

What distinguishes Conceptual Reversion in the case of the human "living person," is that the reverted feeling must be similar to as well as different from the valuative feelings. Since here the valuative feelings are significantly different (higher grade), God supplies eternal objects proportionately different to function as appropriate Lures for feeling. What is significant on the part of the human subject is its ability to hold together the manifold complex data derived from the past and from God in the unity of its final complex contrast, its satisfaction, and thereby elicit that extreme level of depth and intensity of feeling that distinguishes the living person from all the rest. The nature of this final synthesis will be better under-
stood as the analysis of the process of concrescence continues. Prior to its final synthesis and next to be considered is the important synthesis called a transmuted feeling.

3. 6th Categori]al Obligation: Transmutation and the Third Phase of Concrescence

A transmuted feeling is a physical feeling having as its data a multiplicity of actual occasions prehended as one macroscopic whole, that is as a nexus. Whitehead introduces the Category of Transmutation to account for the emergence of this derivative feeling:

When (in accordance with Category IV, or with Categories IV and V) one, and the same, conceptual feeling is derived impartially by a prehending subject from its analogous simple physical feelings of various actual entities, then in subsequent phase of integration—of these simple physical feelings together with the derivate conceptual feeling—the prehending subject may transmit the datum of those prehended actual entities, or of some part of that nexus; so that the nexus (or its part), thus qualified, is the objective datum of a feeling entertained by this prehending subject.2

Although transmutation is important in high-grade occasions, Whitehead maintains that it occurs even in the lower grade occasions. He accounts for this difference in the following manner. In the third phase of concrescence, the physical feeling given in the initial phase and the conceptual feeling given at the second phase are integrated and synthesized in a "contrast." 3

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1Ibid., pp. 387, 383.

2Ibid., p. 384; also see p. 40. Whitehead's references to Categories IV and V are to the "Categorical Obligations."

3See the 8th "Category of Existence," PR, p. 33 and the 17th "Category of Explanation." p. 36.
simplify, it appears that here there are but a few basic possibilities governing the type of contrast that emerges. The physical datum given in the initial phase can be

(1) simple and non-reverted;
(2) simple and reverted;
(3) complex and all non-reverted;
(4) complex and at least some and perhaps all reverted.

Theoretically, in the case of (1) and (2) transmutation is impossible, yet see above pages 145-53, esp. 145-48 and footnote 2 on page 147 of Chapter III of this dissertation. In the case of (3) and (4), that is where the data are complex, we have the possibility of forming a nexus of the complex physical feeling through the contrast which is a "transmutation." With this arises the subsequent possibility for the emergence of more complex "propositional feelings."¹ The conceptual feelings given by the subject in the second phase can be (1) merely valuated and conformal, in which case there are accordingly four main types corresponding to the above division of the physical datum; (2) reverted, in which case additional types of contrasts are possible and when coupled with either (2) or (4) yield double reversions.²

The above is misleadingly simplified. The possible complexities noted in the datum and in the subject are virtually limitless, for these can combine to form contrasts ranging from very simple to complex contrasts and even contrasts of contrasts, "and so on indefinitely to higher grades of contrast."³

¹Ibid., p. 393. ²Ibid., p. 386. ³PR, p. 33. See p. 406: "'Comparative feelings' are the result of integrations not yet considered; their data are generic contrasts. The infinite variety of the more complex feelings come under the heading of 'comparative feelings.'"
None the less the resulting contrast of "comparative feelings"—derived from a contrast of the data of phases one and two or, in the case of intellectual feelings, of one and three—can be divided into two main types. The originative comparative feelings are divided into (a) "physical purposes" and (b) "intellectual feelings." Whitehead calls the comparative feelings arising in low-grade occasions physical purposes, for inasmuch as they do not acquire integration with conscious perceptions or intuitive judgments in subsequent phase(s) of concrescence, they do not, in themselves, involve consciousness. Depending on whether the physical purposes arise from the contrast of physical feelings with conceptual feelings generated either according to the IVth or Vth Categorical Obligations, physical purposes are further divided into those of the First or Second species. In either case, as Sherburne says, with a physical purpose the eternal object, which had been pried out of immanence into transcendence at the second phase of concrescence, sinks back into immanence at the third phase; the indetermination as its ingressions, which had characterized it in the conceptual feeling, leaves it at the stage of physical purposes. The result is that it ceases to be a lure for feeling, and the process that is the concrescence of its subject comes to a halt with this "blank evaluation."  

Since Whitehead is intent on maintaining that transmutation occurs even in low-grade actual occasions, it follows that in these occasions transmutation at most results in the simplest form of simple physical purpose. Here conceptual reversion contrast is at a minimum and the contrasted transmuted data tend to sink into their previous state of immanent determination as in

1Ibid., p. 406.  
2Ibid., pp. 420-28.  
3See Sherburne, A Whiteheadian Aesthetic, p. 57 and A Key, p. 65. The source of Sherburne's remark seems to be PR, p. 280.
the initial stage of concrescence. Here in effect no nexus is adequately prehended, which is to say that for all practical purposes transmutation is negligible and insignificant. This also explains why it is impossible for these actual occasions to experience the higher levels of prehension such as those attending sensation, consciousness, and the higher intellectual experiences; for, any activity in the process of concrescence presupposes the prior acts upon which it depends for its data. At the other extreme is the "living person" composed of actual occasions each of which experiences high level reversion-transmutation and consequently can further synthesize the activity of the human organism by the introduction of high-grade consciousness.

Without having examined the intricacies of the relatively simple activity of transmutation, we can point out several important aspects of the process in summation. First, transmutation involves abstraction, negation, and simplification. From the multiplicity of actual occasions, one eternal object (derivative either through Valuation alone or with Reversion) is abstracted and transmuted as a single datum.\(^1\) Subsequently transmutation is completed with the emergence of a transmuted physical feeling in which the multiplicity of actual occasions originally given as data in the receptive phase of concrescence are physically prehended as one macroscopic entity. Abstraction involves negation, for in the process of transmutation the irrelevant multiplicities of detail are eliminated.\(^2\) Now the activity of negation and abstraction as well as affirmation and unification has as its source the mental pole, and since mentality is the agent of simplification, transmutation is a

\(^1\)Pr., p. 98.

\(^2\)Ibid., pp. 388-89; cf. 383.
process of simplification:

Mentality is an agent of simplification; and for this reason appearance is an incredibly simplified edition of reality.

The best example of this process of simplification is afforded by the perception of a social nexus as a unity, characterized by qualities derived from its individual members and their interconnections.

It is thus that Whitehead introduces transmutation to further specify the mode of activity manifest by creativity in the second and third phases of concrescence.

Second, Whitehead means to account for our sense perception of a unified common world through the doctrine of transmuted feelings, and in fact claims that for the animal life on Earth "by far the most important example of Transmutation is afforded by Sense-Perception." He goes so far as to suggest that in practice for human beings "only transmitted feelings acquire conscious ness."4

Third, while some form of transmutation is present in most, perhaps every, process of concrescence, it is only with the higher actual occasions that it emerges as an important distinguishing Category; for its heightened presence is the first step toward intellectual experience properly so called.5

These points are well brought together in the following passage, which because of its importance will be quoted in full:

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1Al, p. 273; also see p. 274.  
2PR, p. 387; Al, pp. 273-82.  
3Al, p. 274.  
4PR, p. 362.  
5Ibid., p. 383.
It is evident that aversion and aversion, and also the Category of Transmutation, only have importance in the case of high-grade organisms. They constitute the first step towards intellectual mentality, though in themselves they do not amount to consciousness. But an actual entity which includes these operations must have an important intensity of conceptual feelings able to mask and fuse the simple physical feelings.

Also the examination of the Category of Transmutation shows that the approach to intellectuality consists in the gain of a power of abstraction. The irrelevant multiplicity of detail is eliminated, and emphasis is laid on the elements of systematic order in the actual world. In so far as there is trivial order, there must be trivialized actual entities. The right co-ordination of the negative prehensions is one secret of mental progress; but unless some systematic scheme of relatedness characterizes the environment, there will be nothing left whereby to constitute vivid prehension of the world. The low-grade organism is merely the summation of the forms of energy which flow in upon it in all their multiplicity of detail. It receives, and it transmits; but it fails to simplify into intelligible system.

We must now relate the previous discussion to the question of human freedom. Here it is necessary to discuss transmutation in conjunction with the higher forms of perception in the modes of presentational immediacy and symbolic reference.

4. Presentational Immediacy

With transmutation in its more significant manifestations, arises the possibility of perception in the mode of "presentational immediacy"—and with this the further possibility of perception in the mixed mode of "symbolic reference." Perception in the pure mode of presentational immediacy is an outgrowth in a later phase of concrescence of the complex data given with causal efficacy. To be precise, the data in both pure modes is the same. But what was given as vague, ill defined, and hardly relevant in causal efficacy, be-

1Ibid., pp. 388-89.
2See this chapter pp. 203-04.
comes by the originative power of mentality in the supplemental phase "distinct, well defined, and importantly relevant..." The perception of presentational immediacy claims to be of something given contemporaneously with the perceiving actual occasion.

Recall that contemporary occasions are defined as being causally independent and consequently as manifesting only spatial extensiveness among themselves. Consistently Whitehead formally defines perception in the mode of presentational immediacy as perception "which merely, by means of a sensum, rescues from vagueness a contemporary spatial region, in respect to its spatial shape and its spatial perspective from the percipient." It is important to understand that presentational immediacy involves an activity of abstraction from what was originally given for the purpose of rendering this data clear, simple, and consequently capable of becoming more manageable.

Whitehead says that obvious examples of presentational immediacy in which there is no admixture of symbolic reference—i.e. no conscious interpretation would be "delusive perceptions" such as viewing an image of a grey stone in a mirror; visual delusions arising from some delirium or imaginative excitement; some instances of double vision; seeing the stars and nebulae of the Milky Way at night; feeling pain in an amputated limb; and referring a bodily

\[^{1}\text{PR, p. 262. Consequently the characteristics of the data of presentational immediacy are exactly opposite those of causal efficacy: "In comparison they are distinct, definite, controllable, apt for immediate enjoyment, and with the minimum of reference to the past, or to future." (PR, p. 271.)}\]

\[^{2}\text{Ibid., p. 185; see AI, p. 277.}\]
pain to some part of the body not causing the pain. However, perception in the pure mode of presentational immediacy is not restricted to delusive and delusive-like sensations. Whitehead maintains that this mode of perception plays the dominant role in direct scientific observations which aim at perception purified of any interpretative elements. Examples of this would be "measurements, determinations of relative spatial positions, determinations of sensa-data such as colours, sounds, tastes, smells, temperature feelings, touch feelings, etc."

Scientific theory, on the other hand, "is stated in terms referring exclusively to the scheme of relatedness, which, so far as it is observed, involves the percepts in the pure mode of causal efficacy." To which can be added that inasmuch as it is interpretative and seeks to verify its theories in future as well as past experience scientific theory involves perception in the mixed mode of symbolic reference.

In addition to the more special case of scientific theorizing, "interpretative perceptions" are especially evidenced in our more ordinary sense perceptions. In fact, Whitehead maintains that what one ordinarily means by sense perception is exemplified in our direct visual perception of a grey stone—as opposed to seeing it in a mirror. In this type of perception, there is already an element of synthesis and interpretation beyond the mere given of presentational immediacy. There is a reference to a grey stone as an entity

1 PR, p. 186; also see pp. 100-01; At, pp. 274-75, 316-18. Yet cf. S, pp. 21-25. Also cf. PNK, 23, 3-23, 5, pp. 84-85; CN, pp. 38, 151-53.

2 PR, p. 257.  
3 Ibid., p. 257.
having a past and a probable future. Which is to say that here "symbolic reference" plays some part in the perception. Because the greater part of conscious perception in human experience involves symbolic reference it is somewhat difficult to describe and analyze perception which involves nothing more than presentational immediacy—and the causal efficacy which it presupposes. What follows is but an outline of such an analysis.

Visually perceiving a stone, to use a more obvious instance of sense perception, is made possible inasmuch as the animal organism has evolved a rather elaborate structured society capable of supporting the necessary organs of sensation, in this case the eye and optic nerves, embracing of course the nervous system up to and including the brain. The visual perception of the stone is a rather complex activity involving a causal passage through the many strings of actual occasions from the external data to the eye, through the nervous system, and culminating in the present actual occasion in the personal society in the brain. 2

There is no question of direct perception of the contemporary occasions, no direct perception of the nexus which is the stone, for the original data of the final percipient is its immediately antecedent actual occasions which are the directly prior personal actual occasion "and" the brain—and only through the brain the body and finally the stone. 3 Which is to say that

1Ibid., pp. 255-56.  
2Ibid., p. 260.  
3AT, p. 276; also see pp. 251-52; PR, pp. 188, 257. Finally see PR, pp. 256-59, esp. 258 where Whitehead concludes that "the animal body is the great central ground underlying all symbolic reference."
presentational immediacy arises in the supplemental phases of concrescence and involves a projection (unfortunately so called)\(^1\)—also called "precipitation"\(^2\)—of the sense given in causal efficacy upon a region contemporary with the perceiving actual occasion. The result of this projection is the perception of a nexus of occasions perceived as being gray, there, now. This can be stated a bit more technically. The datum of perception in the mode of presentational immediacy is "the objectification of a contemporary nexus of actual entities in its unity as a nexus. The nexus is illustrated as to its constitution by the spatial region, with its perspective relations."\(^3\) Commenting on this passage Schmidt summarizes how this datum arises:

This nexus of contemporaries is provided by the datum of a perceptive propositional feeling wherein, by transmutation of content provided by past physical feelings, a group of entities is perceived as a unity. The character of the unity derived from the past is projected upon an extensive region as characterizing contemporary entities which for that subject are potential, not actual, and are called an "image" in contrast to an "object" in causal efficacy (PR 98a, 386d).\(^4\)

The importance of presentational immediacy for human freedom is that with it the animal is able to begin to isolate groups of occasions in its immediate environment as distinct, definite, controllable and highly relevant items existing contemporaneously with itself, which is similarly apprehended as a macroscopic entity. As a consequence, the animal is able to form definite

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\(^1\)Al, p. 276; also see 251-52; PR, pp. 188, 257. Finally see PR, pp. 256-59 where Whitehead concludes that "the animal body is the great central ground underlying all symbolic reference."

\(^2\)Al, p. 314.

\(^3\)PR, p. 98.

\(^4\)Perception and Cosmology, p. 136. See all of Schmidt's fine detailed analysis of perception in the mode of presentational immediacy, Chapter ix, pp. 134-47.
bonds of relationship with these other macroscopic entities. Thus the dog or the man is able to perceive the gray there now as existing in a common environment.

However, and this is important, apart from some subsequent interpretative element or what Whitehead calls of symbolic reference, the perception which is presentational immediacy remains in itself inefficacious to cause an additional element of freedom to enter into the world. For considered in itself and apart from the other modes of perception, the pure mode of presentational immediacy gives only information of the present and none at all of the past or the future. What is ordinarily meant by human perception and by sense perception in the higher animals and what is entailed in exercising freedom on even this level of conscious awareness has a reference to the past and the probable future. Thus the dog perceives the gray stone there now as the particular object within its total environment that was thrown by the man and is striking him, and he will be thereby free to react to it accordingly. He may bite it, or flee from it, he may attack the man or run lovingly to him, recognizing his master's playful act, or whatever. The point of this freedom is that with presentational immediacy the dog and the man can vividly perceive themselves as present within a rather complex world of macroscopic entities. As a consequence, they can subsequently through symbolic reference vividly perceive themselves as emerging from a common past and together affecting the macroscopic future. But in the absence of symbolic reference the data of pre-

1PR, pp. 189, 255, 261.

2With symbolic reference comes the experience of a sense-perception
sentational immediacy in effect remain barren to introduce significantly higher levels of freedom.

D. Freedom and Perception in the Mode of Symbolic Reference

Ordinary human perception, then, almost always has a reference to the past and the probable future, which is to say that it includes some degree of conscious awareness. Now conscious awareness emerges with perception in the mixed mode of symbolic reference arising in a still higher phase of concrescence:

In the transition to a higher phase of experience there is a concrescence in which prehensions in the two modes are brought into a unity of feeling: this concrescent unity arises from a congruity of their subjective forms in virtue of the identity relation between the two prehensions, owing to some components in common. Thus the symbolic reference belongs to one of the later originative phases of experience. These later phases are distinguished by their new element of originative freedom....When human experience is in question, 'perception' almost always means 'perception in the mixed mode of symbolic reference.'

Two things especially should be noted concerning symbolic reference. First, the possibility for this mixed mode of perception is ultimately to be that is common to man and at least the higher subhuman animals (MT, p. 99), and which can be characterized as the triumph of abstraction in animal experience: "Such abstraction arises from the growth of selective emphasis. It endows human [and higher animal] life with three gifts, namely, an approach to accuracy, a sense of the qualitative differentiation of external activities, a neglect of essential connections.

These three characters of the higher animal experience—namely, approximate accuracy, qualitative assignment, essential omission—together constitute the focus of consciousness, as in human experience." (MT, pp. 100-01.)

1Pr, p. 255.  
2Ibid., p. 262; cf. S, pp. 49-56.
found in the common ground of the pure modes. Second, whereas presentational

1There has been some controversy among Whitehead scholars over the precise relationship maintaining between symbolic reference and consciousness. At one extreme is the position of Blyth. In his Whitehead's Theory of Knowledge (p. 84), Blyth criticizes Whitehead for not coordinating the explanation of conscious perception with the two modes of unconscious perception (causal efficacy and presentational immediacy). Commentating on this, Sherburne in turn criticizes Blyth for failing to give an adequate interpretation of Whitehead's meaning of the "datum" which in presentational immediacy is felt unconsciously and which is perceived consciously in symbolic reference. (A Whiteheadian Aesthetic, pp. 87-88, n. 10). Sherburne has shown that symbolic reference is a judgment occurring as a complex comparative feeling (or intellectual feeling) and which as such involves propositional feelings and consciousness. (Ibid., pp. 82-88; also see A Key, pp. 113-14, 214-15, 246-47.) This would mean that every instance of symbolic reference involves consciousness.

On the other hand is the interpretation of Schmidt. In his Perception and Cosmology, Schmidt says that "Consciousness only arises in the developed phases of concrescence of highly complex organisms in connection with the vividness of the data of presentational immediacy in symbolic reference." (p. 132.) This does not mean that every act of symbolic reference involves consciousness, however (p. 149.) It appears that Johnson views the matter much as Schmidt does, though perhaps for different reasons. (Whitehead's Theory, p. 86.)

To us the most accurately stated interpretation occurs as a passing comment by Lawrence in his Whitehead's Philosophical Development, (pp. 335-38.) Like Blyth, Lawrence observes that the two pure modes are meant to explain how the subject is provided with perceptive content while their synthesis in symbolic reference accounts for conceptual analysis. Lawrence points out that symbolic reference must not, however, be identified with conceptual analysis, although there is a strong interplay between the two. Indeed in S, p. 19 Whitehead goes on to say that symbolic reference must be explained antecedently to conceptual analysis, and he uses the example of Aesop's dog (pp. 19, 20-21) to illustrate symbolic reference (conscious sense perception) operating the absence of conceptual analysis. This example, as Lawrence is suggesting, indicates that there are degrees of symbolic reference and consciousness, ranging from mere conscious attention of sensually perceived particulars to the higher forms of conceptual analysis. By using the distinctions introduced earlier the positions of Schmidt, Lawrence, and perhaps Johnson can be combined with the excellent analysis of the process of concrescence offered by Sherburne with the result that Whitehead's intended position would be stated more precisely and accurately: all symbolism will be seen to involve consciousness, but there are degrees of conscious activity and critical thresholds to be crossed. These thresholds will distinguish the conscious activities of the higher animals from the conscious activity proper to man alone and will in turn serve to specify the unique activity which is man's freedom. This will specify precisely wherein lies the uniqueness of human freedom as a different and higher type of activity.
immediacy need not involve consciousness, it is precisely conscious prehension arising in conjunction with presentational immediacy which gives rise to symbolic reference and which constitutes the emergence of a higher level of freedom.

Whitehead explains that consciousness emerges as the subjective form of a feeling that involves a "proposition." Therefore, before the conscious element of symbolic reference can be examined it will be necessary to say something about the nature of "propositional feelings." In the third phase of concrescence, there arises in higher grade actual occasions, such as those constituting the living person, a contrast between the physical data given in the initial phase and conceptual feelings given in the supplemental secondary phase. This contrast is called a "proposition"—or "theory"—and the resulting feeling of this datum is termed a "propositional feeling." It is called "propositional" because Whitehead conceives it as being constituted by the integration of a "logical" subject and predicate; the former being the physical data felt now as a bare logical subject, a bare multiplicity, a bare "it" and the latter being the conceptual feelings now called the "predicative pattern."

The manner in which propositional feelings differ from physical purposes can now be stated more precisely. Whitehead explains that the latter are more primitive, inasmuch as they are the result of a contrast of physical

\[\text{1PR, p. 280.} \quad \text{2Ibid., pp. 35-36, 397, 391-92.} \]

\[\text{3Ibid., p. 398; see AI, p. 327.} \quad \text{4PR, p. 393. See Emmet, Whitehead's Philosophy, (2nd. ed.) pp.161-173.} \]
and conceptual feelings culminating in an eternal object that does not reduce the objective datum of the physical feeling to a multiplicity of bare logical subjects. In other words, abstraction and simplification is not as complete or extreme as in the case of propositional feelings. Because the subject is reduced to a bare multiplicity, propositions function as lures for feeling. As such, though they must be either true or false, the importance of propositions in the process of concrescence and especially for intellectual activity is in their arousal of interest rather than in their truth-value—though, as Whitehead says, the true is usually more interesting than the false.

By comparing the "indicative feeling" from which the logical subjects are derived with the "physical recognition" from which the predicative pattern is derived propositional feelings can be divided very generally into (1) "perceptive feelings" and (2) "imaginative feelings": where these feelings are identical there is a "perceptive feeling" and where they are different there is an "imaginative feeling." Perceptive feelings are in turn divided into (a) authentic and directly derived feeling, i.e., involving no (or rather very little) transmutation or reversion; (b) authentic and indirectly derived feeling, i.e., involving transmutation; and (c) unauthentic feeling, i.e., involving reversion. Because imaginative feelings arise from a difference between

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1 PR, pp. 280, 285-86, 421. 2 Ibid., pp. 37, 281-82, 394-96, 402.
3 Ibid., pp. 283-85, 395-97; AL, 312-14. 4 PR, pp. 399-401.
5 Ibid., p. 401. 6 Ibid., p. 410.
7 Ibid., pp. 399-400. See Schmidt's Perception and Cosmology, pp. 112-13; Sherburne's A Whiteheadian Aesthetic, pp. 56-68.
the "indicative feelings" and the "physical recognition," and because there are degrees of difference ranging from virtual identity all the way to extreme remote disconnection, imaginative propositional feelings similarly differ greatly in degree. Yet so far as there is this difference, there is "some trace of free imagination." ¹ When Whitehead considers the intellectual feelings—termed "intuitive judgments"—which derive from imaginative propositional feelings it will be seen that this species of propositional feelings are further divided into three basic sub-species.

The above divisions of propositional feelings is very important in Whitehead's system and therefore demands a much more extensive presentation than the above outline might indicate. For the purpose of this work, however, it will suffice to emphasize these points. First, intellectual feelings will be distinguished according to the propositional feelings from which they are in part derived. ² As we shall see, this will be the basis for distinguishing human cognition as a uniquely higher kind of awareness and as a consequence, human freedom as being similarly unique in kind.

Second, through propositional feelings Whitehead wishes to further specify the manner in which the creative advance occurs as the higher level of actual occasions. ³ Here two points must be kept in mind. The proximate organ of novelty within the concrescing subject is its mental pole, and therefore Whitehead ought to hold that the emergence of propositional feelings is due to the increased activity mentality evidenced in higher grade actual occa-

¹PR, pp. 401-02. ²Ibid., p. 417. ³Ibid., pp. 286-87, 396.
sions. In fact this is Whitehead's explicit position. Comparing physical purposes with propositional prehensions, Whitehead says that the acquisition of the eternal objects in the former instance evidences the "abruptness" of mental operations," whereas propositional prehensions are the result of the increase in mentality: "But with the growth of intensity in the mental pole, evidenced by the flash of novelty in appetition, the appetition takes the form of a 'propositional prehension.'"\(^1\) The second point has to do with the mode in which creativity manifests itself at the level of propositional perceptions. The discussion of these perceptions is meant to be a further specification of the principle that creativity determines by negation. For propositional feelings are made possible by a double elimination or abstraction, that is by a two fold negation:

In this integration of "indicative" and "predicative" feelings the two data are synthesized by a double elimination involving both data. The actual entities involved in the datum of the indicative feeling are reduced to bare multiplicity in which each is a bare "it" with the elimination of the eternal object really constituting the definiteness of that nexus. But the integration rescues them from this mere multiplicity by placing them in the unity of a proposition with the given predicate pattern. Thus the actualities, which were first felt as sheer matter of fact, have been transformed into a set of logical subjects with the potentiality for realizing an assigned predicative pattern. The predicative pattern has also been limited by elimination. For as a datum in the conceptual feeling, it held its possibility for realization in respect to absolutely any actual entities; but in the proposition its possibilities are limited to just these logical subjects.\(^2\)

With this double negation initiated by the high-grade level of mentality, propositional feelings continue the process of elimination and abstraction characteristic in "transmutation," only now at a higher level in actuality.

\(^1\)Ibid., pp. 286-87, 280. \(^2\)Ibid., pp. 393-99.
Consequently additional levels of complexity, of negation and of synthesis are introduced. This the mode creativity or the creative advance takes with higher grade actual occasions. 1

Third, because propositions come into being with the creative advance of the world, it is necessary to note in passing the role played by God in the advanced stage of this process. The principle that God supplies the novel forms of definiteness for ingression still applies, though we are here at a higher level in the hierarchy of actuality and consequently a higher order potentiality will be required. A proposition is a hybrid type of entity involving a complex eternal object contrasted as an ingredient within some logical subject. It functions as a novel lure for feeling. Therefore the question is what is the source of the origin of these lures for feeling. Here Whitehead says,

The primary element in the 'lure for feeling' is the subject's preprehension of the primordial nature of God. Conceptual feelings are generated, and by integration with physical feelings a subsequent phase of propositional feelings supervenes. The lure for feeling develops with the concrescent phase of the subject in question. I have spoken of it elsewhere (cf. Science and the Modern World, Ch. XI).

"It is this realized extension of eternal relatedness beyond the mutual relatedness of the actual occasions which prehends into each occasion the full sweep of eternal relatedness. I term this abrupt realization the 'graded envisagement' which each occasion prehends into its synthesis. This envisagement is how the actual includes what (in one sense) is 'not-being' as a positive factor in its own achievement. It is the source of error, of truth, of art, of ethics, and of religion. By it, fact is confronted with alternatives." 2

1Ibid., pp. 286-87, 396, 427-28.

2Ibid., p. 287; cf. 381-82. See Parmentier, La Philosophie de Whitehead, Chapter IX, esp. pp. 399-417.
In other words, the uniqueness of the proposition as a datum for higher grade intellectual feeling has as its extrinsic source the high-grade eternal object offered by God to be integrated into the process of concrescence of the emerging subject.

Fourth, though a necessary ingredient for consciousness, propositional feelings need not themselves involve consciousness, and still less do they necessitate judgments. In fact, Whitehead says that "judgments" and "consciousness" are rather rare components in propositions. It is only when propositional feelings are taken-up into another and subsequent synthesis that conscious feelings and intellectlon arises; it is at this point that symbolism occurs.

To better understand perception in the mixed mode of symbolic reference, it is important to grasp (1) that symbolic reference involves a "judgment"; (2) that this judgment involves consciousness; (3) that consciousness is the mode of activity manifest by creativity in high-grade actual occasions; and (4) that here consciousness is at a comparatively low level.

As to the first, Sherburne has shown that symbolic reference is a judgment in a high-grade actual occasion whose component parts are the data perceived in the mode of causal efficacy and in the mode of presentational immediacy. Speaking of this synthesis Sherburne says,

1PR, p. 281.

2A Whiteheadian Aesthetic, pp. 82-88.

3A judgment is a synthetic feeling, embracing two subordinate feelings in one propositional feeling. In this context judgment is not to be understood as meaning "intuitive judgment."
The pinnacle of enhancement achieved at c [with presentational immediacy] by actual occasions of the highest order is a lifting of the past into the present, a lifting into "distinct, prominent, relevance" in the mode of presentational immediacy of sensa but vaguely felt in the mode of causal efficacy. The final synthesis occurs at d [with symbolic reference]; the heavy, vague feeling of efficacy associated with a prehended nexus has superimposed upon it the brilliant clarity of distinct regions exhibiting sensa. This superimposition is more than the sum of the two more primitive modes of perception, more than a mere reference from one mode to another; it is one unified mode of perception, the mixed mode of perception, i.e. symbolic reference. It has a metaphysical unity corresponding to the unity of everyday perceptual encounters with stones and trees....

Secondly, symbolic reference involves consciousness. "Consciousness," says Whitehead, "is the subjective form involved in feeling the contrast between the 'theory' which may be erroneous and the fact which is 'given.'"² The "given facts" in conscious experience refer to the data physically prehended at the initial phase of concrescence, while the "theory" refers to the propositional feeling arising in the subsequent third phase. Whitehead calls the feelings that emerge from these types of genetic contrasts "intellectual feelings" and, depending on the type of propositional feelings from which they in part emerge, he further divides them into "conscious perceptions" and "intuitive judgments."³

Whitehead's description of conscious perception points to its identification with perception in the mixed mode of symbolic reference. Conscious perception is said to arise "from the integration of the perceptive propositional feeling with the original physical feeling."⁴ Now perception in the

¹A Whiteheadian Aesthetic, p. 86.

²PR, p. 245. Also see 13th "Category of Explanation": "That there are many species of subjective forms, such as emotions, valuations, purposes, aversions, consciousness, etc." (PR, p. 35.)

mode of symbolic reference appears to satisfy this description, i.e. symbolic reference involves consciousness. This mixed mode of perception arises as a synthesis of the given "facts" which are the original physical feelings prehended in the mode of causal efficacy with the "theory" which is the perceptive propositional feeling prehended in the mode of presentational immediacy. Depending on the particular species of perceptive propositional feeling involved in this synthesis, i.e. depending on the presence and degree of transmutation and/or reversion involved in presentational immediacy, symbolic reference evidences more-or-less freedom, or novelty, more-or-less fidelity with the given fact. To this extent perception in the mode of symbolic reference, that is, conscious perception, may yeild untrue or erroneous perceptions. Error is possible when presentational immediacy takes the form of either unauthentic or indirectly authentic perceptive propositional feelings. Error and even evil—pain, suffering, death—is often the price an animal pays for the freedom that accompanies conscious perception.

Thirdly, in high-grade actual occasions the activity of creativity takes the form of consciousness. Again calling to mind the interpretations of Chapter II concerning the role of mentality in the process of concrescence and the fact that creativity actuates through negation, it remains to be observed that Whitehead consistently maintains that an integral part of conscious awareness, be it perceptive, conceptual, or, as is often the case, a mixture emphasizing one or the other, that this awareness involves a radically

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1 On the possibility of error in conscious perception see Schmidt, Perception and Cosmology, pp. 112-13, 145-47, 152-87; Sherburne, A Whiteheadian Aesthetic, pp. 66-69, 82-87, esp. 87.
negative element as its distinguishing characteristic.

Whitehead introduces this negative element where he further specifies the manner in which consciousness emerges as the subjective form in high-grade actual occasions. Consciousness belongs to the subjective form when an "affirmation-negation" contrast has entered into it:

The subjective form will only involve consciousness when the 'affirmation-negation' contrast has entered into it. In other words, consciousness enters into the subjective forms of feelings, when those feelings are components in an integral feeling whose datum is the contrast between a nexus which is, and a proposition which in its own nature negates the decision of its truth or falsehood. The logical subjects of the proposition are the actual entities in the nexus. Consciousness is the way of feeling that particular real nexus, as in contrast with imaginative freedom about it. The consciousness may confer importance upon what the real thing is, or upon what the imagination is, or upon both.¹

In an intellectual feeling the datum is the generic contrast between a nexus of actual entities and a proposition with its logical subjects members of the nexus. In every generic contrast its unity arises from the two-way functioning of certain entities which are components in each of the contrasted factors....The common 'subject' entertaining the two feelings effects an integration whereby each of these actual entities obtains its one rôle of a two-way functioning in one generic contrast. As an element in the subject no objectified actual entity can play two disconnected parts. There can only be one analysable part....This one analysable part involves in itself the contrast between the sheer matter of fact, namely, what the objectified entity in question contributes to the objectified nexus in the physical feeling, and the mere potentiality, of the same actual entity for playing its assigned part in the predicative pattern of the proposition, in the eventuality of the proposition's realization. This contrast is what has been termed the 'affirmation-negation contrast.' It is the contrast between the affirmation of objectified fact in the physical feeling, and the mere potentiality which is the negation of such affirmation, in the propositional feeling. It is the contrast between 'in fact' and 'might be' in respect to particular instances in this actual world. Thus in experience, consciousness arises by reason of intellectual feelings, and in proportion to the variety and intensity of such feelings.²

As these texts indicate, it is termed an "affirmation-negation con-

¹PR, p. 399.
²Ibid., pp. 286, 407.
strat," because it expresses the fact that consciousness is the result of a
synthesis of physical data which are "affirmed" and a proposition which fur-
ther abstracts from or "negates" these same data. In extreme instances, ne-
gation will be absolute and the predicate will be simply denied of the logical
subject. The affirmation is grounded in the initial phase of concrescence
and expresses the relationship of determination by means of causal efficacy.
The subject never totally frees itself from its past, however, and consequent-
ly this is Whitehead's explanation of the fact that the past determines the
present subject, not only in the initial phase of concrescence but also sub-
sequently throughout the latter phases—and this holds even where the subject
is a high-grade actual occasion such as those dominant in high-grade animals
and including man.

Nevertheless, the subject does manifest a rather high degree of free-
dom, and this is again explained by Whitehead's appeal to the data themselves
and to the subject's mental activity. Concerning the data, recall that sense
perception is possible inasmuch as the animal has developed a sophisticated
and unimaginably complex structured society which is the animal body. In
higher animals are developed the organs of sensation which enable the complex
welter of sense data to be isolated and transmitted to the prehending regnant
occasion in the brain. But the subject can introduce novelty to match the
complex environment, and it is able to do so because of its heightened degree
of mental activity. It will be remembered that mental experience is the organ
of novelty,\(^1\) and that mentality is the agent of simplification.\(^2\)

It follows that in very high-grade occasions, such as those dominating high-grade animals, the creative advance which is operative through the agency of the mental pole manifests itself differently, that is at a significantly higher level of actuality. Since the important threshold of consciousness has been crossed, Whitehead introduces a new term and says that the agency of the mental pole manifests itself as the "affirmation-negation contrast." Or rather, it is the presence of that data and this mentality that together make there to be a prehension of this macroscopic organism that is common-sensically, and here philosophically and scientifically, recognized as a high-grade animal.

As specifying the manner in which eternal objects ingress in creativity, consciousness manifests the special way negation determines these high-grade occasions. The negation in this contrast takes the form of a proposition which, it was shown, has itself simplified the indicative and predicative feelings through a double negation that effected an important abstraction. With consciousness this process of negation, simplification, and abstraction continues at a still higher level; for the proposition, which is itself a synthesis lying between physical and conscious purposes,\(^3\) is here

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\(^1\)FR, p. 33.

\(^2\)AI, p. 273: "It is a mistake to suppose that, at the level of human intellect, the role of mental functionings is to add subtlety to the content of experience. The exact opposite is the case. Mentality is the agent of simplification...."

\(^3\)FR, p. 427.
taken-up into a further synthesis which involves an additional "negations," and which results in what Whitehead calls a conscious prehension. The affirmative and negative element within conscious experience is well brought out in the following passage:

Also, all awareness, even awareness of concepts requires at least the synthesis of physical feelings with conceptual feeling. In awareness actuality, as a process in fact, is integrated with the potentialities which illustrate either what it is and might not be, or what it is not and might be. In other words, there is no consciousness without reference to definiteness, affirmation, and negation. Also affirmation involves its contrast with negation and negation involves its contrast with affirmation. Further, affirmation and negation are alike meaningless apart from reference to the definiteness of particular actualities. Consciousness is how we feel the affirmation-negation contrast. Conceptual feeling is the feeling of an unqualified negation; that is to say, it is the feeling of a definite eternal object with the definite extrusion of any particular realization. Consciousness requires that the objective datum should involve (as one side of a contrast) a qualified negative determined to some definite situation....this doctrine implies that there is no consciousness apart from propositions as one element in the objective datum.1

That negation is meant to play an important role in perception in the mode symbolic reference is seen in that even here at the level of mere sense perception consciousness entails perceiving not only what is but also what is not. Recurring to the example of consciously perceiving the grey stone, that is perceiving it in the mode of symbolic reference, Whitehead says that within this perception there is an element of negation, of perceiving the stone as not-grey. To be sure, there will be degrees of negation, and this will explain how perceptive propositional feelings may take one of three forms. Rather, these forms are expressions of these diverse negations: depending on

1_Ibid._, p. 372.
the presence and extent of transmutation and especially reversion conscious perception introduces an additional element of novelty into experience. As we shall see presently, when we come to man, the actual occasions exercising domination as the living person are able to explicitly formulate this negative conscious perception, with the result that what emerges is the highest manifestation of conscious perception:

The general case of conscious perception is the negative perception, namely, 'perceiving this stone as not grey.' The 'grey' then has ingression in its full character of a conceptual novelty, illustrating an alternative. In the positive case, 'perceiving this stone as grey,' the grey has ingression in its character of a possible novelty, but in fact by its conformity emphasizing the dative grey, blindly felt. Consciousness is the feeling of negation: in perception of 'the stone as not grey,' such feeling is full development. Thus the negative perception is the triumph of consciousness. It finally rises to the peak of free imagination, in which the conceptual novelties search through a universe in which they are not datively exemplified.

Fourthly, with perception in the mode of symbolic reference consciousness is at a comparatively low level. What has been said concerning conscious perception applies to each of its manifestations. It applies to the conscious perceptions of the so called "higher brutes" as well as to man. Consequently its presence serves to identify the unique mode of freedom that both groups have in common and which is lacking in the vegetative kingdom—so far as can be presently determined. Now consciousness evidences itself in varying degrees

1 Beside the threefold division of perceptive propositional feelings see Whitehead's division of "conformal" and "non-conformal" propositions in PR, p. 284.

2PR, p. 245. As we shall see, what differentiates conscious perception from "intellectual conceptions" is that whereas the former is characterized by a feeling of the contrast on the level of mere particularity, the latter is characterized by an explicit conscious awareness of the generic feature of the contrasted data.
and there is an important threshold to be crossed. In order to establish the basis of this threshold, it will be necessary to consider the activities that differentiate the actual occasions constituting the living human person from all the rest and which, as a consequence, specifies the unique mode of freedom manifest by man. This is the subject of the following chapter.
CHAPTER V

HUMAN FREEDOM: ITS PLACE IN THE MACRO COSMIC SCHEME

In Chapter IV we investigated the earlier stages in the process of concrescence of the regnant actual occasions of the human soul. We observed how freedom is built-up through a series of perceptions in the modes of causal efficacy, presentational immediacy, and low-grade symbolic reference. We are now in a position to complete our study of human freedom in Whitehead's philosophy. First, we will introduce the higher mode of "perception" associated with high-grade human mental activity, namely, what we call "intellectual consciousness." We will show how, in Whitehead's terms, this can be understood to be a unique mode of consciousness not at all to be found in lower grade actual occasions such as the regnant occasion of the higher "brute animals." Second, we will show how as a consequence of this level of consciousness Whitehead wishes to explain the unique mode of self-determination exercised by these higher actual occasions and thereby wishes to explain the unique mode of self-determination evidenced by the macroscopic organism taken as a whole.
A. The Higher Phases of Concrescence

Intellectual Conception

What we have chosen to call "intellectual conception" is a relatively rare happening in nature. As we shall see presently, Whitehead maintains that as far as we know only human beings are so constituted that their regnant actual occasions are capable of exercising this higher type of mental activity and the higher type of freedom associated with it. In order to understand Whitehead's meaning, we have had to examine the various stages in the process of concrescence prior to intellectual conception. There is no gainsaying this order of procedure, for higher human conscious activity is not to be separated from the process of concrescence taken as a whole, unified activity. We will now examine the final phase of concrescence and show that in terms of Whitehead's philosophy it is correct and meaningful to speak of the uniqueness of intellectual conception and human freedom.

Though Whitehead does not use the term, we have selected "intellectual conception" as a generic name to refer to all of those conscious experiences which are on a higher level than mere "conscious perception," "perceptive imagination," "perceptive abstractions" and memories of these that man shares with the sub-human animals. The term "intellectual" follows Whitehead's

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1In § Whitehead speaks of "conceptual analysis" in order to distinguish between perceptual and conceptual awareness, but he does not explain how this mode of awareness differs from low-grade "symbolic reference." (§, pp. 18-21). When in PR he does introduce the categorial ideas in terms of which such a distinction can be explained, unfortunately he does not develop that explanation and he does not make use of the older term.

In developing Whitehead's explanation we have therefore selected a phrase which is closely related to Whitehead's later terminology and which conveys his intentions, as it seems to us, to differentiate sharply human conceptual awareness and free choice as a uniquely higher mode of activity.
terminology and conveys his explicit contention that these and all subsequent and derivative feelings are on the level of consciousness. "Conception" was chosen to refer to the common characteristic of these feelings when distinguished from the lower types of "intellectual feelings." Sense perception entails cognition of the particular or singular physical data as physical and particular and at most occasionally rises to the level of perceptual generalization. "Perceptive imagination" and memory of conscious perception retains this reference to the original sensible experience. The freedom associated with these levels of consciousness is limited to choosing between this and that perceived macroscopic entity. Unlike these, "conception" conveys the idea that the higher conscious experiences bear upon the uniquely human grade of cognitive experience that goes "beyond" the mere particular sensible and perceptual generalizable and attends to the conceptually entertained "general propositions."

It is necessary to introduce some such term because Whitehead's discussion of "intellectual feelings" in Process and Reality simply does not explicitly treat of many types of higher conscious feelings that he recognizes in this and many other works. In fact, as Schmidt has observed, Whitehead has not even formally explained how memory of sense experience is possible, though his system can be shown to easily accommodate the experience.¹

Before analyzing "intellectual conception" in some detail, it is appropriate to present at least a tentative division of the more basic types of intellectual feelings. Schmidt has offered an alternative to Whitehead's

¹Perception and Cosmology, p. 157 (see pp. 154-60).
division of "intellectual feelings" and therefore it is best to begin with it.

Observing that Whitehead discusses only two species of intellectual feelings, namely, conscious perceptions and intuitive judgments, Schmidt suggests that Whitehead's division be so modified as to accomodate "conscious memory." Intellectual feelings would then be divided into (1) "intuitive judgments," (2) "inferential judgments," and (3) "conscious recognitions," these latter being subdivided into (3a) "conscious perceptions" and (3b) "conscious memories." Schmidt shows that by extending the theory of prehension, rather than by seriously modifying it, Whitehead's several references to conscious memories can be explicitly appended to his discussion of intellectual feelings. He proceeds to argue convincingly that the two species of conscious recognitions are to be distinguished by the presence or absence of presentational immediacy in their constitution: it being present in (3a) and absent in (3b), i.e., conscious memories are to be explained solely by causal efficacy.

The inclusion of inferential judgments (also called derivative judgments) in Schmidt's division is certainly warranted on textual grounds and would seem to account in large measure for the still more complex types of "comparative feelings" alluded to by Whitehead. For while Whitehead lists only two main species of intellectual feelings, it must be remembered that "intellectual feelings" and "physical purposes" are but two classes from an "in-

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1 Ibid., pp. 154-57.  
2 Ibid., p. 157.  
3 PR, pp. 292-93, 416; 418.
finite variety of the more complex feelings" that come under the heading of "comparative feelings," and they are "simple types" at that.¹ Inferential judgments would consequently appear to be a major type of those complex comparative feelings arising in still higher phases of concrescence. They will depend in the main upon the intuitive judgments from which they are derived and upon the subjective aim guiding the process.

It seems to us that Schmidt's classification needs to be expanded so as to allow for a further differentiation of the major types of complex comparative feelings. For as it stands, it does not serve to sharply differentiate the unique characteristic of high-grade human consciousness nor, therefore, can it function to distinguish the uniqueness of high-grade human freedom. In the first place, on the level of the more simple intellectual feelings a place must be made for at least two other important feelings: for "conscious imagination," which Whitehead discusses in conjunction with "intuitive judgments" with which they are not to be confused² and for conscious

¹Ibid., p. 407.

²PR, pp. 419-20. It is somewhat surprising to find Sherburne identifying conscious imagination with suspended intuitive judgments. Discussing this species of intuitive judgments Sherburne says that it "is quite indifferent to truth or falsehood, as when a fairy tale begins with the phrase 'once upon a time.' This latter is an instance of conscious imagination." (A Whiteheadian Aesthetic, p. 67.) It is true that Whitehead does speak of their identity where he says, "Suspended judgments are weapons essential to scientific progress. But in intuitive judgments the emotional pattern may be dominated by indifference to truth or falsehood. We have then 'conscious imagination.' We are feeling the actual world with the conscious imputation of imagined predicates be they true or false." (PR, p. 419.) However, Whitehead clarifies his meaning when he immediately adds that "When we compare these three cases of intuitive judgment (involving attention to truth) with conscious imagination (involving inattention to truth), that is to say with 'imputative feeling,' we
aesthetic experience which is such an important part of human experience. 1

In the second place, Schmidt does not sufficiently distinguish between different kinds of memories. There are two distinct kinds of memory experience depending largely upon the original experience, and therefore memories ought to be divided into (1) memories of conscious sense perception and (2) memories of intellectual conception, be they of intuitive judgments, conscious aesthetic experiences, conscious imagination, or of the many varieties of even more complex comparative feelings such as derivative judgments and religious feelings. 2

note that except in the case of negative judgments, the datum of the conscious imagination is identical with the datum of the corresponding judgment. Nevertheless, the feelings are very different in their emotional patterns. One emotional pattern is dominated by indifference to truth /"conscious imagination"/; and the other emotional pattern by attention to truth /"intuitive judgment"/. (PR, pp. 419-20.) Textual considerations thus prevent any facile identification of suspended judgments and conscious imagination. Rather conscious imaginations are distinguished from intuitive judgment; moreover, this reading dispels the disconcerting suggestion (certainly not explicitly intended by Sherburne) that scientific hypothesis begin with "once upon a time."

1See for example, AI, pp. 324-351.

2At this point an objection might be forthcoming to the effect that Schmidt's analysis is adequate to explain memories of intellectual conceptions and therefore it is unnecessary to further subdivide the category of conscious memory. For an argument would be made, and would have to be granted, that memories of intellectual conceptual experience can also be explained solely in terms of causal efficacy and that consequently the memories are on the same level. As Schmidt says concerning conscious memories, "It seems that presentational immediacy is not involved in conscious memories for the following reasons. There is no projection of content on a contemporary region. There is not even association of the content with the seat-region but only with some past region. On the other hand, there is a sense in which the content (eternal objects) is immediately present to our awareness, but this need only be an awareness of an actual entity in our personal society and not of any co contemporaries. We might call this 'subjective immediacy' in contrast to presentational immediacy, which involves a reference to contemporaries. Con-
In the third place, Schmidt's division does not adequately indicate the scope of the more complex types of complex comparative feelings. Thus he speaks of but inferential judgments and omits such feelings as aesthetic and religious experience. That is, it is not at all apparent that religious experience and statements of religious beliefs or conscious aesthetic feelings are identical with any one of the species of feelings listed by Schmidt.

Furthermore, a good argument could be made for including all of the sciences and philosophy as well as common-sense reflections among the still more complex types of comparative feelings especially when considering them as either speculative or practical bodies of knowledge. As such, they have inferential parts or moments; also they no less than the arts are moved at

scious memories seem to involve only causal efficacy." (Perception and Cosmology, p. 157.) While this may well explain the similarity among memories, namely their unique genesis as the integration of the objectified satisfaction of some past actual occasion in my personal society with the specious present actual occasion of this same society (p. 156-57), it ignores the fact that the objectified data that are remembered are very different in each case. It is telling that Schmidt joins conscious memory with conscious perception to form the category of conscious recognitions. This seems to restrict memory to sense experiences, and in fact his examples of conscious memory are of past sense experiences, of seeing a red-winged bird or of hearing its musical chants. Explaining how conscious memory differs from conscious perception, Schmidt consistently appeals to the double reference or double integration of the perceptive propositional feeling. But intellectual conceptions are derivative from imaginative propositional feelings, and therefore inasmuch as these give rise to a different and higher kind of cognitive experience the memory of intellectual conceptions will similarly be of a different and higher kind. Yet Schmidt's analysis holds, but here it is the imaginative propositional feeling which evidences a double reference: (1) a direct reference to some members of the personal society constituting the remembering self, and (2) an indirect reference to those actual entities which the imaginative proposition describes. (p. 157.) This is a crucial distinction, for there is a great difference between remembering the red-wing bird and calling to mind Godel's proof.
least implicitly by beauty, i.e. the aesthetic experience, almost as much as by the desire to seek the true or do the good. Which is not surprising, since for Whitehead the basic and original form of experience is aesthetic. Moreover, the greater part of imaginative artistic creation would seem to belong here, for the works of art are concerned with more than the mere aesthetic experience. Thus, for example, the artistic creation is not totally unconnected with truth, though its primary purpose is to grasp the Truth of reality as it is revealed in its Beauty.

This is not the place to enter into a detailed examination of the division of these and other types of "intellectual conceptions." We are concerned rather to call attention to Whitehead's sometimes implicit sometimes explicit contention that these conceptions are on a higher order than mere sense perceptions, sense imagination, and sense memory. Moreover, it is important for our topic inasmuch as the uniqueness of human freedom is directly bound up with the uniqueness of higher human conscious awareness. It will therefore suffice that the common characteristic unique to these high-grade feelings be examined, and that this be related to the task of discerning the ground of human freedom.

Whitehead's explanation of the uniqueness of intellectual conception follows the pattern already observed in his analysis of transmutation, propositions and propositional feelings, and conscious perception. A higher level of actuality emerges as the consequence of greater complexity of integration in the process of concrescence. In turn, this is traced to two underlying factors: the significantly more complex and varied data at this stage in concres-
cence and the subject's greater power of mentality which introduces significant novelty to match and re-organize the data in a higher synthesis.

The datum of an "intuitive judgment" is a contrast of the physical feeling of a nexus of actual occasions and an imaginative propositional feeling. The uniqueness of this datum for regnant actual occasions forming the human personal soul is to be found primarily in the "imaginative propositional feeling," which already manifests an especially high degree of novelty and which is here contrasted with a physical feeling. In other words, what was itself a propositional feeling now functions as the logical predicate of a more complex comparative feeling whose logical subject is a nexus of actual entities. The intuitive judgment is the high-grade conscious feeling, and this complex comparative proposition is what is felt. However, the judgmental feeling will be seen to be more than just the feeling of this complex comparative propositional feeling, for it will involve a judgment of conformity concerning logical subject and predicate. But what of the datum that is felt?

The imaginative propositional feeling results when the indicative feeling is not identical, that is, is different from the physical recognition feeling (also called physical recollection.)\(^1\) As was observed, there will be degrees of difference between these feelings ranging from near identity to remote disconnection, and that this in part explains the origin of different kinds of intuitive judgments. Yet even where there is virtual identity this

\(^1\)PR, p. 415.
difference remains, and consequently Whitehead chooses to give them a special name. Manifesting what Whitehead calls "free imagination," he chooses to term these special propositional data "imaginative propositional feelings."¹

Whitehead's discussion of imaginative propositional feelings is somewhat complicated because he wants to hold two diverse views. He wants to differentiate between imaginative and perceptive propositional feelings. At the same time he maintains that they are not absolutely distinguishable. In order to understand his meaning and clarify his position a few additional words of explanation are in order. On the one hand, Whitehead claims that intuitive judgments are not to be absolutely distinguished from "conscious perceptions" inasmuch as their respective propositional data similarly are not absolutely distinguishable. In support of his claim he offers two observations.

First a comparison of these species of intellectual feelings can be made from the side of the "conscious perception." To the extent that transmutation and/or reversion accompanies conscious perception, this mode of intellectual feeling tends to "take on the general character of intuitive judgments."² Whitehead's meaning appears to be that the greater the degree of

¹"But there are degrees of difference between the indicative feeling and the physical recognition, which can vary from the case when the two nexus forming the objective data of the two feelings respectively, enjoy the extreme of remote disconnection, to the case at the other extreme when the two nexus are almost identical. But in so far as there is diversity between the feelings, there is some trace of free imagination." (PR, p. 402.) Underlining is mine. See Sherburne's brief but illuminating diagram and explanation of the difference between "perceptive" and "imaginative" propositional feelings. A Whiteheadian Aesthetic, pp. 65-69.

²PR, p. 415.
transmutation and/or reversion in the perceptive propositional feeling, the closer the resultant conscious perception approximates an intuitive judgment. Inasmuch as indirect authentic and especially unauthentic conscious perceptions introduce "substantial" amounts of novelty, they tend to resemble intuitive judgments.

A second observation concerns the comparison made from the side of the intuitive judgment. For this comparison, Whitehead appeals to the difference in contrasts between perceptive and imaginative propositional feelings. Whereas only one set of actual occasions is involved in the formation of the perceptive feeling, there are two sets involved in the imaginative feeling. More precisely, in the former the indicative and recognition feelings are identical, whereas in the latter they are diverse— at least minimally. Minimal diversity, that is the key; for Whitehead says that where diversity between the indicative and recognition feeling is trivial the intuitive judgments tends to approximate a conscious perception. This may occur in the "yes-form" intuitive judgment to be discussed presently. Therefore Whitehead maintains that this species of judgment may be difficult to distinguish from conscious perception based on direct perceptive propositional feeling. Here, then, affirmative intuitive judgments tend to resemble conscious perceptions. Emphasizing this resemblance based on minimal diversity between the two sets of actual occasions, Whitehead goes so far as to claim that a "conscious perception is a very simplified type of affirmative intuitive judgment; and a direct affirmative intuitive judgment is a very sophisticated case of conscious perception."
On the other hand, Whitehead does after all distinguish between conscious perceptions and intuitive judgments. For if they resemble each other in some of their manifestations, they are clearly different and irreducible in their extreme forms. This is in part explained in terms of the difference between their propositional datum. Whitehead does not deny that an imaginative feeling arises as the integration of two distinct physical feelings, and in this they differ from perceptive feelings. This duplicity within the physical feeling will be one source of the possibility of a manifestly great difference between the two main types of propositional feelings. Thereby it is a source of the possibility for the manifestly great difference between the two major classes of intellectual feelings. Depending in part on the degree of diversity between the indicative and recognition feelings, imaginative propositional feelings may yield three distinct types of intellectual feelings when synthesized in a conscious intuitive judgment.

Now it seems to us that some clarification can be brought to Whitehead's discussion of "imaginative propositional feelings" if we interpret him to be intimating that the uniqueness of this propositional data and consequently the subsequent "intuitive judgment" is to be explained as follows. As one approaches the extreme diversity in degree a critical threshold is crossed and and a new level of consciousness emerges. Between imaginative and perceptive

1Ibid., pp. 401-03, 413.

2Speaking of imaginative and propositional feelings Whitehead says that "These kinds are not sharply distinguished, but their extreme instances function very differently." (PR, p. 397.)

3PR, p. 412.
propositions, and between their corresponding conscious perceptions and intuitive judgments, there emerges a new and higher class of conscious awareness.  

That is to say, an evident conclusion from this analysis of Whitehead's is that (1) however similar the physical feelings in an intuitive propositional feeling may be, they are never identical, and in this there is a real difference when compared to perceptive feelings; (2) this difference is explained in terms of the underlying complexity of the process of concrescence and, as will be presently seen, is grounded in the higher level of mental activity evidenced by the emerging subject actual occasion; (3) in part as a

1This clarification is not meant to suggest that all the difficulties in Whitehead's position are thereby resolved. For example, one is puzzled that Whitehead distinguishes between imaginative propositional feelings on the basis of the degree of difference between the indicative and recognition feelings, which admittedly can be very great, and seems to ignore the role of reversion in the process. Thus, (1) reversion in the objective datum—either in the indicative or recognition datum—and/or (2) reversion of the recognition feeling in the subject would seem to account for an even greater diversity between the physical nexus and predicative pattern. This can be visualized by integrating Figures 1, 3, 4, and 6 in Sherburne's work, A Whiteheadian Aesthetic, pp. 56, 60-67.

Not that Whitehead totally ignores the role of reversion when explaining intuitive judgments, for at least in one passage he says that the predicative feeling originates from the physical recognition feeling either immediately according to the 4th Categorical Obligation (conceptual valuation) or mediately according to the 5th (conceptual reversion) (PR, p. 413.) He also observes in passing that the indicative feeling can possibly involve reversion in its origin. (PR, p. 414.) Yet Whitehead does not work out these or the other mentioned possibility and therefore what has been attempted by way of clarification is based on the distinctions Whitehead does emphasize as accounting for the major different types of complex comparative feelings. In other words, Whitehead introduces these underlying distinctions—the types of propositions differentiated on the basis of the diversity between the indicative and recognition feeling, etc.—as an explanation for what comes to be a different kinds of activities: for distinguishing between sensory perception, recognition, and perceptive generalizations common to man and sub-human animals alike and conceptual abstractions that are proper to man alone.
consequence of the difference between these propositional feelings, intellectual conceptions differ from conscious perceptions inasmuch as they evidence a higher level of awareness not at all present in the lower grades of actuality; (4) this does not preclude differences in degree within the division of perceptive feelings or within the division of imaginative feelings, and consequently it requires that there similarly be differences in degree within the species of conscious perceptions and intuitive judgments.

Finally, it is here suggested that the imaginative propositional data yields intellectual feelings that are unique. This uniqueness takes the form of conscious attention to the general and even universal features of things, as general and as universal, and in this intellectual conceptions differ from conscious perceptions, perceptive images, and conscious memories, which attend only to particular or concrete features in things, and which at most are formulated as perceptive generalizations. This interpretation is reinforced and amplified when the role of mentality in intuitive judgments is examined.

Because the mental pole functions as the subject's agent of novel activity throughout the entire process, and because its functions within the general purpose of the subjective aim which it initially fashions, it is only by artificially dividing the process of concrescence that one can speak of the mentality operative in isolated phases. With this in mind, let us none the less observe Whitehead's discussion of the role of mentality in the formation of the emotional pattern of the two main types of propositional feelings, and then examine how mentality is further manifested in the formation of intuitive judgments.
As lures for feeling, propositions function to heighten the emotional pattern of experience.

The propositions are lures for feelings, and give to feelings a definiteness of enjoyment and purpose which is absent in the blank evaluation of physical feeling into physical purpose. In this blank evaluation we have merely the determination of the comparative creative efficacies of the component feelings of actual entities. In a propositional feeling there is the 'hold up'—or, in its original sense, the epoch—of the valuation of the predicative pattern in its relevance to the definite logical subjects which are otherwise felt as definite elements in experience. There is the arrest of the emotional pattern round this sheer fact as a possibility, with the corresponding gain in distinctness of its relevance to the future. The particular possibility for the transcendent creativity—in the sense of its advance from subject to subject—this particular possibility has been picked out, held up, and clothed with emotion.¹

Now the emotional pattern in this context is the manner in which or "how" this particular subject feels this particular proposition. It depends upon the subjective aim, and therefore this subjective form² is determined internally, i.e. freely, by the subject's mental pole via its subjective aim as a further reaction to the physical data. Stressing the element of "reaction" Whitehead says that the difference between perceptive and imaginative feelings lies in the emotional patterns of the two feelings rather than in the felt propositions themselves. Whereas the emotional pattern of a perceptive feeling "reflects the close connection of the predicate with the logical subjects," the emotional pattern of an imaginative feeling "reflects the initial disconnection of the predicate with the logical subjects...."³

¹PR, pp. 427-28.
²See PR, p. 35 where emotions are listed as a species of subjective form.
³Ibid., p. 417.
This passage once more brings together the two aspects of mentality in the formation of propositional feelings. In the first place, mentality "reflects" the relationship given in the propositional data, and this is true even where the predicative pattern is different from the logical subjects as is the case with imaginative propositional feelings. The mental pole will have to at least initially "reflect" the status of the diverse propositional data—even where they are diverse to the extreme. In the second place, the agency of mentality functions to organize the data in a novel synthesis. With propositional feelings this synthesis takes the form of "heightening" the emotional pattern of a contrast between the logical subject and predicate. The predicative pattern "held-up" or "abstracted" as a bare possibility is here isolated so as to function as a lure for subsequent novel ingressions. In the case of imaginative propositional feelings emphasis is placed upon the disconnection of the predicate with its logical subject. This disconnection will be in turn reflected within the emphasis of the conscious subjective form in intellectual conception. That is to say, the emotional pattern of experience can clothe the pure possibilities thus experienced: either as we consciously experience these possibilities, at least implicitly, within the concrete facts of our sense experience, as happens most strikingly in conscious aesthetic experience; or as we abstract the possibility from the concrete facts as happens for example, in logic and mathematics.\(^1\) Whitehead maintains that even in these latter instances there is an experience of aesthetic satisfaction.

\(^1\)MT, pp. 83-87; also see pp. 165-71.
In a similar fashion, the subjective form of an intuitive judgment reflects the contrast from which it is derived. Thus the judgment "confers importance" initially upon what the diverse data of the imaginative proposition is. In this it differs from conscious perceptions which "confer importance" initially upon what the real thing is. Now in an intellectual conception, the novelty of the extremely high-grade datum is matched by the novelty of the subjective form of consciousness. At this point in the process, mentality evidences itself as the attempt to integrate into a higher intellectual synthesis the concrete feelings physically experienced with high-grade abstracted potentialities which are conceptually entertained—what is with what may be. Mentality here takes the form of consciousness attentively holding up a logical subject (be it singular, general, or universal)\(^2\) in a contrast with a potential predicative pattern that it may exemplify.

Here consciousness if the sometimes implicit sometimes explicit awareness that the pattern is not merely restrictable to this logical subject. For even where this pattern is exemplified in reality, i.e. actuality, only in this particular subject or only in subjects of its kind, at this high level of mentality the pattern can nonetheless be conceptually entertained apart from its ingestion in that particular logical subject. Thus the question of its relationship with this logical subject can be consciously entertained.\(^3\)

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\(^1\) See PR, p. 339. The relevant passage was quoted in Chapter IV, p. 236, n.1.

\(^2\) Ibid., pp. 282-316; AI, p. 312.

\(^3\) AI, pp. 313-14. Shahan implies this where he speaks of intuitive
To grasp the nature of this higher intellectual synthesis, it is crucial that here one call to mind the repeated observation that the subjective form arises from the subjective aim dominating the entire process of concrescence. The point is that the particular manner in which this present actual entity feels the contrast of this particular objectified nexus of actual entities and the complex eternal object which is this particular imaginative proposition is dependent upon the subjective aim governing the entire process.

Here the subjective aim functions to distinguish intellectual conception as a different kind of feeling and further differentiates them into their various sub-classes, for it specifies the purpose for which the intellectual conception is entertained. Intuitive judgments arise as a consequence of the high level of mental activity which enables the subjective aim to attend to the "truth-value" or "belief-value" of the datum. "Conscious aesthetic experience" and "conscious imagination" are not necessarily attentive to the "truth-value" or "belief-value" and will be distinguished from the various species of "intuitive judgments" by virtue of their different kinds of subjective aims.¹

At this point it might be well to emphasize the emotive function of intuitive judgments. Although we are speaking of a species of intellectual con-

¹This point is excellently developed in Sharper's article "Aesthetic Perception," pp. 274-80.
ceptions, it must not be thought that these high-grade cognitive experiences have totally abstracted from the emotive aspect of the original percepts given in causal efficacy. On the contrary; as Whitehead says, "emotion in human experience, or even in animal experience" is "emotion interpreted, integrated, transformed into higher categories of feelings."¹ Intuitive judgments and conscious intellection in general continue this process of transformation, but now on the order of higher grade conceptual awareness.

But whereas the emotional pattern in conscious imagination and conscious aesthetic experience are inattentive to the truth or falsity, the subjective form of an intuitive judgment has as its aim just such conscious attention.² For intuitive judgment is a conceptual (at least implicitly conceptual) comparison—or judgment of compatibility—between the imaginative propositional feeling and the original concrete facts given emotionally in the initial phase of concrescence. These facts are perceived as a macroscopic entity (or entities) in my environment, as for example, when I intuitively judge that this stone was hurled at that dog by that man for no apparent reason. (By "my judgment" I mean, of course, that judgment made by the regnant actual occasions of my personal soul. How this judgment affects my whole macroscopic being will be noted shortly.) This intuitive judgment has "held up" the emotion as a pure possibility to be realized in my present and future conscious life. Rather than instinctively reacting to this surging anger, my conscious judgment entails a vivid awareness that I am angry, even, in its more clearly

¹PR, p. 248. ²Ibid., pp. 418-20.
cognitive function, that I am feeling anger(ness). As a consequence this new cognitive experience of anger, that I know it as well as feel it, it is possible for me to consciously choose the form my reaction will take. I may even choose to give full vent to this anger and thus intuitive judgment can add to the original emotive content. We will return to the question of human freedom in the following section.

What distinguishes intuitive judgments as a separate class of feelings is their explicit conscious assertion, usually verbalized, of the truth or falsehood of the imagined predicate datum contrasted with the physically felt nexus. Depending on the relationship maintaining between the predicative pattern and the character of the contrasted actual entities, the subjective form asserts this attention to truth-value in one of three distinct judgments: (1) "yes-form" where the data may be so much alike and compatible that the intuitive feeling based on them is judged to be true—in which case there will be contained a feeling of belief. (2) "no-form" where the data are so unlike and incompatible that the intuitive feeling based on them is false—in which case there will be contained a feeling of disbelief; and (3) "suspense-form" where the data are unlike but compatible—in which case there will be contained a feeling of suspended-belief or what Whitehead simply calls a "suspended judgment."

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PR, pp. 409-16. By belief Whitehead clearly means neither the case where "there is a measure of doubt due to incomplete knowledge of the facts," (Mays, The Philosophy of Whitehead, p. 169.) nor what Josef Pieper or Martin Marty describe as unconditional assent to some matter based on the testimony of someone else, i.e., as involving both "belief in" and "belief that." (Pie-
Whitehead's discussion of "suspense-form" and "no-form" judgments is especially significant: it tends to further support the interpretation that at least some of the more important human activities such as intellectual judgments are specifically different and not at all to be found in non-human animal activity. It also throws additional light on his explanation of the emergence of high-grade human freedom. First consider "suspense-form" judgments. They assert that what is neither actually identical nor actually diverse and incompatible data may in fact be actually compatible for ingestion. They introduce on the level of consciousness the possibility that the contrast affirms real potentiality for novel ingestion. As such they amount to conceptual knowledge that goes beyond knowing what is or what is not: it is knowledge of what might actually be true.

The significance of suspended intuitive judgments for human freedom is that with them novel potentialities for future actualization pass into conscious awareness. With these judgments comes the possibility of conceiving of novel modes of thinking about experience and novel modes of acting. Let us return to the example of felt anger. In virtue of my freely entertained suspended judgment, we can think that perhaps that man threw the rock because he

per, Belief and Faith, translated by Richard and Clara Winston, Chicago: Henry Regnery Co., 1963, esp. Chapters 1-11, pp. 3-24 of Logus ed; Marty, Varieties of Unbelief, Holt, Rinehart and Winston, 1964, esp. Chapter 1, pp. 17-26.) Whitehead is giving a rather different definition: "A feeling is termed a 'belief,' or is said to include an element of 'belief,' when its datum is a proposition, and its subjective form includes, as the defining element in its emotional pattern, a certain form, or eternal object, associated with some gradation of intensity. This eternal object is 'belief-character.' When this character enters into the emotional pattern, then, according to the intensity involved, the feeling, whatever else it be, is to some degree a belief." **(PR, p. 408.)**
recognized the dog from a previous unhappy encounter. Once aware of this possibility, I am able to act accordingly, and so I may walk over and offer assistance. My anger would have become sympathy. I can pragmatically verify my novel idea and the wisdom of my chosen course of action by actually encountering the individual.

The importance of suspended judgments as well as their uniqueness in human conscious awareness is brought out where Whitehead observes that these feelings are indispensible for our progress in scientific theory. In effect Whitehead is explaining the fact of science in terms of his categorial scheme, and he is claiming that the explicit and reflective creative insights consciously formulated as scientific ideas or even hypothesis to be used in unifying and explaining matters-of-fact often take the form of suspended-judgments.

This suspended judgment is our consciousness of the limitations involved in objectification. If, in the comparison of an imaginative feeling with fact, we merely know what is and what is not, then we should have no basis for discovering the work of objectification in effecting omissions from the formal constitution of things. It is this additional knowledge of the compatibility of what we imagine with what we physically feel, that gives us this information....Our whole progress in scientific theory, and even in subtility of direct observation, depends on the use of suspended judgments. It is to be noted that a suspended judgment is not a judgment of probability. It is a judgment of compatibility. The judgment tells us what may be additional information respecting the formal constitution of the logical subjects, information which is neither included nor excluded by our direct perception.1

Suspended judgments play an equally important role in non-scientific conceptual experience, where in similar ways they function to elicit into consciousness

1PR, p. 419.
novel modes of thinking about experience and also where they facilitate novel modes of acting. In other words, they may be formulated either as a speculative or practical judgment and either within or without general schemes of ideas—such as science, philosophy, common-sense beliefs, art, religion, morality, etc.

To be sure, the other two forms of intuitive judgment are indispensable throughout the higher grade intellectual process, and therefore they also function within these schemes. For without an ultimate ground in affirmation or denial, suspended judgments would be totally illusory and meaningless. Therefore suspended judgments also retain at least an indirect reference to the real state of affairs in the world in so far as this state can be judged in "yes" and "no" form intuitive judgments. That is to say, suspended judgments are possible only on condition that some—at least one—judgment is not suspended. For further confirmation that intuitive judgments are to be found only in the regnant actual occasions of the human person we need but recall Whitehead's statements about the source of science and philosophy. Because intuitive judgments may, and very often do, occur within a general scheme of ideas such as in science or philosophy, frequently they are made within a general context of inferential judgments. Now if suspended intuitive judgments, with all they entail in terms of the other types of intuitive judgments, are indispensible for science and if "as far as direct evidence reaches, Science and Philosophy"—as well as the other higher types of knowledge concerned with at least implicit understanding of general principles—"belong to man alone,"

1AI, p. 179.
then it would seem that only the high-grade occasions of the personal human soul are capable of intuitive and inferential judgments and the higher kind of freedom accompanying them.

Whitehead's analysis of negative intuitive judgments also points to man's unique position at the summit of the hierarchy of macroscopic organism and illumines his explanation of human freedom. Whitehead explains the emergence of intellectuality in nature as consisting in gain of the power of abstraction.¹

Therefore he quite consistently appeals to the types of abstraction as a basis for differentiating the various grades of regnant actual occasions and thereby the various grades of macroscopic entities.

The final conclusion from the discussions included in this course of lectures is the importance of a right adjustment of the process of abstraction. Those characteristics of experience which separate the higher from the lower species of actualities all depend upon abstraction. The living germs are distinguished from lifeless physical activities by the abstraction inherent in their existence. The higher animals are distinguished from mere life, by their abstractions, and by their use of them. Mankind is distinguished from animal life by its emphasis on abstractions. The degeneracy of mankind is distinguished from its uprise by the dominance of chill abstractions, divorced from aesthetic content.

The growth of consciousness is the uprise of abstractions. It is the growth of emphasis. The totality is characterized by a selection from its details. That selection claims attention, enjoyment, action, purpose, all relative to itself. This concentration evokes an energy of self-realization. It is a step towards unification with that drive toward realization which discloses the unity of aim in the historic process.²

Within the member actual occasions forming human personal society abstraction evidences itself in an especial manner with negative intuitive judg-

¹PR, p. 388. ²MT, pp. 168-69.
Mental progress, it will be recalled, depends in great measure on the right co-ordination of negative prehensions. The significance of negative intuitive judgments in human consciousness is that with them the possibility of this right co-ordination is raised to a new level of experience. Negative intuitive judgments are mentality become conceptually aware of its eliminations, even of its original negative prehensions. With negative intuitive judgments, abstraction has attained the form of extreme conscious awareness of what is not as important for what is and what might be as well as what might have been.

In the case of the imaginative feeling, this emotional pattern reflects the initial disconnection of the predicate from the logical subjects. This example illustrates that in the integration of feelings, components which are eliminated from the matter of the integral feeling may yet leave their mark on its emotional pattern. The triumph of consciousness comes with the negative intuitive judgment. In this case there is a conscious feeling of what might be, and is not. The feeling directly concerns the definite negative prehension enjoyed by its subject. It is the feeling of absence, and it feels this absence as produced by the definite exclusiveness of what is really present. Thus, the explicitness of negation, which is the peculiar characteristic of consciousness, is here at its maximum.

Whitehead would approve of Robert Frost's "The Road Not Taken" which concludes with the words

I shall be telling this with a sigh
Somewhere ages and ages hence:
Two roads diverged in a wood, and I—
I took the one less traveled by,
And that has made all the difference.

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1 Pr., p. 389.  
2 Ibid., pp. 417-18. Underlining is mine.  
That decision by the regnant actual occasions not to take the one road comes to constitute the very being of the man who takes the other road.

Whitehead has thus re-introduced the principle with which he has attempted to differentiate the various grades of actual occasions and thereby the various grades of macroscopic organisms. While the lower grade actual occasions experience positive and mere negative prehension, with the higher occasions there is evidence of conscious awareness of negation, elimination, and abstraction. Thus the "sub-human animal grade actual occasions" are capable of negative perception as is evidenced in sense perception, while the "human grade actual occasions" are, in addition, capable of negative intuitive judgment as is evidenced in intellectual conception. The significance of negative intuitive judgments, then, is that their appearance manifests the present culmination of the evolutionary process that began with the lowest grade actual entities and nexus with positive and mere negative prehension.

In Adventures of Ideas Whitehead discusses the four ways an actual occasion may deal with the disharmony of the world as given for initial prehension.¹ Recall that in Process and Reality Whitehead wrote

The ultimate metaphysical principle is the advance from disjunction to conjunction, creating a novel entity other than the entities given in disjunction. The novel entity is at once the togetherness of the "many" which it finds, and also it is the one among the disjunctive "many" which it leaves; it is a novel entity, disjunctively among the many entities which it synthesizes. The many become one, and are increased by one.²

The four ways actual occasions may deal with the disjunction initially encountered as their environment depends upon the degree of spontaneity stem-

¹AI, pp. 332-40. ²PR, p. 32: "The Category of the Ultimate."
ming from the mental pole. They are (1) the way of mere negative prehension, also called "Anaesthesia" whereby there is complete inhibition or non-inclusion of an actual entity as datum; the way of (2) incomplete inhibition whereby the elimination of incompatible data is accompanied by a positive feeling disrupting the emotional affective tone; (3) the way readjustment, whereby the relative insensitivities of incompatible feelings can occasionally be reduced to compatibilities; and (4) the way of "Appearance," whereby the heightened degree of mentality transforms the physically given data by consciously fusing it with the ideal. With the fourth way mentality has introduced significant novelty to match the complexity and diversity of the data. Whitehead adds that the second and third ways are examples of low type of mental functionings termed "physical purposes," whereas the fourth way evidences the presence of a much higher level of spontaneity. With the fourth way the high-grade level of mentality "preserves the massive qualitative variety of Reality from simplification by negative prehensions."¹

¹AI, p. 335.
not only of what is but also of what is not, and therefore of what may be. As Whitehead says in the case of man this amounts to the entertainment of ideas.

But—considering occasions at their highest, with effective exercise of mental originality \(\text{i.e.}^\dagger\) the regnant actual occasions forming the human person\(\text{i.e.}^\dagger\)—the preservation of zest, after the attainment of a stage of perfection, first requires the exploration of all variations which do not introduce discordance into the type of perfection attained. The variation of styles and of decorative detail in medieval Gothic architecture may serve as an illustration. But such variations are easily exhausted. Bolder adventure is needed—the adventure of ideas, and the adventure of practice conforming itself to ideas. The best service that ideas can render is gradually to lift into the mental poles the ideal of another type of perfection which becomes a program for reform.\(^1\)

For the actual occasions in the human personal soul, maximization of spontaneity evidences itself as a new and higher kind of freedom. In the lower grade occasions freedom appears at most as incomplete inhibition and unconscious readjustment of incompatibilities of negativeprehensions. In the higher "animal occasions" it appears as the lower manifestation of appearance in sense perception. But in the case of the regnant actual occasions forming the human person, freedom "finally rise to the peak of free imagination, in which the conceptual novelties search through a universe in which they are not datively exemplified."\(^2\) With the rise of conceptual experience as evidenced in judgmental cognition, the "human actual occasions" are able to exercise a higher kind of freedom.

With some modification, the analysis of intuitive judgments is applicable to "conscious imagination" and "conscious aesthetic experience." Their similarity to intuitive judgments—i.e., their origin in the latter phases of concrescence—makes it apparent that these modes of conscious awareness arise

\(^1\)Ibid., pp. 332-33.  \(^2\)PR, p. 245.
only in extremely complex actual entities, such as those forming the human soul. What differentiates these as three separate classes of intellectual feelings is their different subjective forms, and is grounded in the different subjective aims guiding the process of concrescence.

Given the purpose of our study, it is unnecessary to state more precisely the manner in which these other major types of intellectual feelings differ. We wish merely to point out that the importance of conscious imagination for freedom is to be found in its indifference to truth. Whitehead offers this mode of awareness as accounting for both perceptual and conceptual flights of free imagination. As such, he offers it as an explanation of the human experience of creatively, i.e. freely, entertaining novel images pertaining to sensible experience and novel ideas pertaining to conceptual experience. It is this power of free imagination, as exemplified in its heightened pure form in conscious imagination, that gives rise to the entertainment of the very high-grade novel mental constructs uniquely manifested in the regnant actual occasions forming the human person.

In an excellent article Eva Sharper has shown that human conscious aesthetic experience is no less abstract than conceptual understanding, since both involve abstractions of formal features of concrete experience. From this perspective, both types of awareness manifest the high-grade mental abstraction characterizing human experience properly so called. As Sharper says, "in cognitively directed experience, what matters are those formal features which can be stated and repeated in more or less complete independence of the

1Ibid., pp. 419-20.  
2"Aesthetic Perception."
initial situation of encounter," while in aesthetic experience what matters "are those formal features as they were previously felt in their uniqueness."\(^1\)

Because it is genuine insight, aesthetic feelings can be important factors in human freedom; for by keeping our abstractions in contact with the aesthetic feelings given in our concrete free choices, they can function as needed correctives to abstract conceptual analysis.

B. Human Freedom and Intellectual Conception

As we observed in Chapter III, there are many passages in his writings where Whitehead claims that given the current status of our knowledge we are led to conclude that among all the macrocosmic entities only human beings engage in certain activities. Only men can understand structure; only men can abstract the principles in the facts and can imagine alternative possibilities; only men can formulate scientific laws; only men possess what have come to be called science and philosophy; only men enjoy civilization with all that this entails; and what is no doubt at the basis of man's unique powers of mentality, only men possess language.\(^2\) The principles Whitehead uses to explain these unique activities have been examined in Chapters IV and V.

Because of the derivative mode of existence exercised by macrocosmic entities, Whitehead's explanation was to be found in the microcosmic order. The source of man's uniqueness was located in the activity of the regnant actual occasions forming the human personal soul. Only these actual occasions

\(^1\)Ibid., p. 279.

are sufficiently complex and have sufficient powers of mentality to introduce into reality the extremely high-grade modes of prehension called "intellectual conception." It was important to establish that, since Whitehead means to explain the fact of man's unique place in nature by appealing to the differences within actual entities, then it is necessary for him to explain how actual entities manifest different levels of prehensions. It was argued that Whitehead attempts to do so (1) by distinguishing between "perceptive" and "imaginative" propositions and consequently between "conscious perceptions" and "intellectual conception" and by (2) appealing to the different and higher degrees of mental power exercised by the regnant actual occasions of the human person.

The effect of Whitehead's analysis, as we have interpreted it, is that there is a specific difference between the activity or "nature" of the regnant actual occasions forming the human soul and all other lower grade actual occasions, such as those forming the rest of the macroscopic human organism or the personal and non-personal societies and nexus of the sub-human animals. This difference is explained in terms of the increasing degree of complexity of the process of concrescence ("The higher forms of intellectual experience only arise when there are complex integrations, and reintegrations, of mental and physical experience."\(^1\)) and in terms of crossing of a critical threshold in the power of mentality (as evidenced in imaginative propositions and intellectual conception—it being argued that only the regnant actual occasions forming the soul evidence the entertainment of imaginative propositions.

\(^1\)FR, pp. 32-33.
tions and the subsequent intellectual conceptions.) It remains to be shown that this analysis also entails that the regnant actual occasions of the human person evidence a specifically higher grade of freedom and that as a consequence on the macroscopic level human beings can be said to exercise a unique mode of freedom—a level of freedom that, so far as one can ascertain, is not at all to be found in the sub-human animals.

As to the first point, we can say in summary that as with all actual occasions, the concrescence of the regnant actual occasions of the human person is a process of self-determination. In an important sense, the goal of the process is the completion or satisfaction of the actual entity: to be causa sui is to freely establish oneself in existence as one complex fully determinate subject. The act of self-determination culminates in the final decision of "cutting off" all possible modes of becoming but the freely chosen one. What is unique about the freedom of regnant actual occasions is the very high level of awareness that is characteristic of their "decisions." For them, self-determination entails a conscious, even self-conscious choice, based on an "intellectual conception" of the known determining circumstances and known possibilities, "decision" takes the form of free choice properly so called. Choosing this possibility entails an implicit, and sometimes quite explicit awareness of not choosing those others. In the extreme form, we are conscious of choosing this one precisely because we choose to reject the others.

In an equally important sense, the goal of this choice is not satisfac-

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1PR, p. 135.  
2Ibid., pp. 68-69, 241-42.  
3PR, p. 68.
tion, for the subject is also superject. The uniqueness of the superjective aspect of these regnant occasions also is due to their high level mental activity. For these occasions there is high level conscious awareness of the future as being a real factor in the present and of the present growing or flowing into the future. That is to say, there is awareness that self-decisions becomes appropriated as another's decisions: what is decided by the present occasion will have determining consequences for future decisions.

There is awareness that subsequent subjects will have to react differently in the future because of this present choice.

The next thing to notice is that the regnant occasions of the soul are themselves apprehended by the body: immediately by the brain and approximately down through the occasions constituting the brain and ultimately by the whole body—and even beyond. Thus the occasions of the soul themself come to be objects for the feelings of the other actual occasions that make-up the human body. In this way the radical freedom manifest by the regnant human society is "poured into" or "fed back" into the occasions that make-up the societies and nexus of the human body.

This is not to say that these "subordinate occasions" can thereby exercise the higher grade freedom of choice evidenced by the regnant occasions. On the contrary, not existing "within" the context of the complex sort of environment such as is found in (with) the regnant occasions, and not exercising comparable powers of mentality, the various types of "subordinate occasions"

\[\text{Ibid.}, \text{pp. 516 and 166-67 (quoted in Chapter iv, p. 199; also see footnote.)}\]
are more determined than free. Consequently, the decisions of the regnant occasions comes to be appropriated by them: appropriated more-or-less freely depending upon where the subordinate occasion is located within the corpuscular society. What has been said applies mutatis mutandis to the choices of the regnant occasions of the brute animals.

Let us now consider the second point, namely, that Whitehead intends to explain the unique kind of freedom exercised by human beings. It should be recalled that for Whitehead the activity of freely choosing among possible alternative modes of thinking and acting is the natural and basic type of human freedom given in our ordinary lived experience. This freedom of self-determination is natural in the sense of being possessed by all humans simply on account of their being human, and it is basic inasmuch as it is entailed in the freedoms of self-realization, self-perfection, and political liberty.¹ Our immediate conscious experience of self-determination is of an act of choice which creatively establishes our present moment of existence. It does so within the limitations placed upon choice by the immediate past experience—of our past bodily and mental experiences—and in virtue of anticipated future consequences. Furthermore, our self-determination involves a conscious awareness that we are choosing and what we are choosing; which is to say that it is a self-conscious choice. Not only do we choose, but we know that we choose. What, then, is unique about the human self-determination?

There are not many texts in Whitehead's writings where he specifically

¹See Chapter 1, pp. 7-12.
alludes to the different modes of freedom found in human and sub-human entities. The few remarks Whitehead does make, however, are very significant. Most important is a passage occurring in a late work, the short lecture "Mathematics and the Good." Whitehead says,

The first animal on this Earth, who even for a moment entertained this notion—the notion of "Any example of a given sort, in abstraction from some particular exemplification of the example or of the sort." was the first rational creature. You can observe animals choosing between this thing or that thing. But animal intelligence requires concrete exemplification. Human intelligence can conceive of a type of things in abstraction from exemplification. The most obvious disclosures of this characteristic of humanity are mathematical concepts and ideals of the Good—ideas which stretch beyond any immediate realization.¹

Interpreting this passage in the light of our findings up to this point leads us to make the following observations. In this passage Whitehead is speaking of freedom on the macroscopic level, and he is saying that what differentiates the free choices of men and "brute animals" is the different order of mentality evidenced in their diverse powers of abstraction. In their synthesizing acts of sense perception, "animals" are able to abstract and to hold in vivid consciousness objects that were originally felt as vague data in their exterior environment. With sense perception comes the ability to distinguish between "this thing" and "that thing"; between this grey stone being thrown and by that man.

Now the total meaning of the sensed object—in part determined by the perceiving animal—evokes an anticipation in the subject. The object is perceived as one to be sought out or avoided, as pleasant or painful, as desir-

¹§VII, pp. 672-73 (Schilp's ed.).
able or undesirable, attractive, fearful, and so forth. Accompanying sense perception is thus the ability to choose freely between alternatively perceived or imagined courses of re-action. The "decision" of the regnant occasions of the dog are "poured out" into the body and the dog is free to bite the stone or flee from it, he may attack the man or run lovingly to him recognizing his master's playful act, or whatever. Though remaining on the level of conscious awareness of particular alternatives and choices among these particulars, Whitehead maintains that the animal does exercise genuine freedom. But it is freedom limited to the animal's relatively low powers of creative imagination. On this level choice is restricted by the animal's ability to act only in light of remembered past sense perceptions and only in terms of sensed or imagined particular alternative courses of action. Its anticipation of the consequences of its choice is also restricted to anticipating this rather than that particular future happening.¹

In addition to conscious sense experience, human animals are capable of conceptual abstraction, of entertaining concepts or ideas apart from their exemplification within sensible particulars—whether sensibly perceived, imagined, or remembered. Consequently they are capable of exercising a greater degree of freedom, a degree which amounts to passing a critical threshold and which makes human freedom specifically different, or unique.

This means that for the human animal free choice entails a factor not at all present in the choices of "brutes." This factor is the entertainment

of the idea, the understanding of the general principle in terms of which and in cognizance of which the human person can exercise his choices. By virtue of the regnant actual occasions man can choose between this ideal or that, between this theory or that, between this course of action or that, and so forth, on the basis of understanding at least implicitly what kind of objects these are, and on the basis of understanding, again at least implicitly, what kinds of ends he is thereby establishing for himself.¹

Moreover, what is most significant, the human being is self-conscious. He knows himself and he knows that he knows; he knows that he has choices and he knows that he knows this; he knows that he is acting for a purpose, or series of purposes, and he is aware of himself doing so. With man mentality has reached the stage where intellect has turned back upon itself. It has become self-critical.²

This is to say that with the human animal self-determination emerges as freedom of choice properly so called. Human self-consciousness evidences a level of abstraction which radically frees the organism from the determining factors of its immediate environment. The dog's choices are limited by what it can perceive and imagine as alternative re-actions to its given world. With man, however, mentality has evolved to the level where, at least in some moments, (1) there can be conscious awareness of the forms within the facts (we understand the facts to be of a certain type and thereby we conceive of

¹NT, pp. 5-6.
²FR, The whole of this small volume is relevant to this point.
things in abstraction form their exemplification); (2) to where mentality can introduce novel ideas for thought and action (ideas not simply identical with those abstracted from the facts of experience or with those older stock of our ideas); (3) to where self-determination is grounded in conceptual awareness, i.e. in at least implicit understanding of what is chosen; and (4) to where free choice comes to be examined reflectively, which is to say that not only do we choose, but we know that we are choosing.

With man this higher kind of self-determination is evidenced especially in two distinct though related areas: freedom to choose among alternative modes of thought and among alternative modes of action.

Whitehead observes that "Mankind and the animals with analogous abilities are distinguished by their capacity for the introduction of novelty. This requires conceptual power which can imagine, and a practical power which can effect."1 In the case of sub-human animals, the relatively lower power of intellection limits the area of choices to the selection between particulars, as was noted, and this entails that their powers of activity are similarly restricted. This is most clearly observed in the activities of insects and the lower forms of animal life where action is limited to instinct or at most reflex action (habitual action in response to sense perception.)2 The spider spins his web with a precision and exactness grounded in instinct and perhaps reflex action. Exercising a rather low-level mentality, it cannot well adapt to changes in its environment; and if for any reason the environment becomes

1MT, p. 42.  
2Si, p. 82.
incompatible with the particular design of its web, the spider will perish for lack of ability to imagine an alternative design and for lack of power to effect the change.

The particular manner in which men adapt to the environment is characterized by a significantly higher level of mentality which Whitehead at times chooses to call "reason." Whitehead says men react to their environment through the functions of reason:

The higher forms of life are actively engaged in modifying their environment. In the case of mankind this attack on the environment is the most prominent fact in his existence.

The primary function of Reason is the direction of the attack on the environment.\(^1\)

Whitehead explains that there are two basic functions of reason:

We can think of it as one among the operations involved in the existence of an animal body (this is "practical reason")\(^2\), and we can think of it in abstraction from any particular animal operations. In this latter mode of consideration, Reason is the operation of theoretical realization. In theoretical realization the Universe, or at least factors in it, are understood in their character of exemplifying a theoretical system. Reason realizes the possibility of some complex form of definiteness, and concurrently understands the world as, in one of its factors, exemplifying that form of definiteness.\(^1\)

While these two functions cannot be absolutely separated—and in fact

The Function of Reason was written to demonstrate their complementary nature—nevertheless they are directed to different ends (or more exactly, these functions represent the two main purposes for which reason may be engaged in) as can be seen when we notice their more extreme manifestations. On the one

\(^{1}\text{FR, p. 8.} \quad \text{2Ibid., p. 9.}\)
hand, reason may be primarily engaged in for the sake of some practical activity, as when the Egyptians developed Geometry in order to build pyramids, or when the early man understood how to kill his prey. On the other hand, in time human reason can come to be engaged in for its own sake. At this level mentality is guided by the desire simply to know, as when the Greeks developed the Geometry into a theoretical science. But man is a unity of body and mind existing in the world of matter and ideas, and therefore both functions of reason are interdependent components in the concrete human situation. Both evidence the high degree of free choice associated with the entertainment of possibilities understood conceptually—either alternative possibilities of action for practical or for speculative ends.
CHAPTER VI

SUMMARY AND CONCLUDING EVALUATION

A. Summary

We have attempted to give a sympathetic interpretation of Whitehead's explanation of human freedom as it is developed in his later philosophical writings. In Chapter I, evidence was introduced to show that Whitehead does not seriously doubt the full reality of our ordinary lived experience of human freedom. The feeling of self determination given within this experience is that of freely choosing among conceptually grasped alternative modes of thinking and acting. Self-determination is natural, primary, and the source of other kinds of freedom—freedom of self-realization, self-perfection, and political liberty—and therefore we have attempted to elucidate its nature in the chapters that followed.

Whitehead understands that to offer an ultimate explanation is to engage in metaphysical speculation. He is therefore intent upon locating the discussion of freedom squarely within the scheme of speculative ideas, as they come to be formulated in his philosophical works especially Process and Real-
In Chapter II, we endeavored to outline Whitehead's explanation of the metaphysical basis of freedom. The *res verae* were seen to be conceived of as a multiplicity of actual entities all of which are free and none of which are unchanging, simple, or self-contained. Their activity, multiplicity, and relatedness suggest that the *res verae* are composite existents. Introducing a novel metaphysical explanation, Whitehead maintains that actual entities are composed of really distinct formative elements termed eternal objects and creativity. In the terminology of the schoolmen, eternal objects and creativity are correlative metaphysical principles of being—or, for Whitehead, principles of becoming: eternal objects functioning as purely potential forms of definiteness and creativity functioning as absolutely formless activity are each "that by which" the actual entity comes to be constituted in its process of concrescence as a "that which is." The non-temporal actual entity which is God plays a radically unique role in this process and this is why Whitehead introduces God as the third formative element in the total metaphysical situation. In his primordial nature, God is the ground of the totality of eternal objects considered as an infinite realm of pure potentialities. In his conse-
quent nature, God gives ultimate meaning to the objective immortality of actual occasions. In his superjective nature, God is the lure for feeling at the origin of the subjective aim of the concreting actual occasion.

An analysis of the 9th Categorial Obligation, "The Category of Freedom and Determinism," and its relation to the "Category of the Ultimate" lead to the conclusion that, creativity and eternal objects are the actual entity's ultimate intrinsic principles of freedom. In order to understand how these principles are the ground of freedom, it was necessary to place the discussion within the context of the problem of causality, for to be free is, for Whitehead, to be causa sui, to be self-determined.

Past actual occasions were seen to provide the immediate environment out of which the subject grows. They function as efficient causes initially determining or limiting the subject's freedom of self-determination. God, too, determines the emerging subject, but He does so after the manner of an extrinsic final cause. As the extrinsic source of the (initial phase of the) subjective aim, God lures the subject to choose the best alternative mode of existence.

We observed that in explaining how the subject freely re-acts to these extrinsic causes and thereby establishes itself as an independent existent, Whitehead constructed a metaphysics that bears a striking similarity to that of Plato's. As radical and purely formless activity, creativity functions in this system as a principle of relative non-being. By virtue of its creative activity, the subject determines its own mode of actuality: it actualizes boundless abstract possibility by a "decision" that entails negations and
exclusions. The "decision" within potentiality, the decision which "eliminates from feeling" and which "cuts off" "this" from "that" is grounded within the very activity of the actual entity as a creature of creativity: it is accounted for by what Whitehead terms "negative prehension." By reason of its negative prehensions an actual occasion initially emerges as "not-being" exactly what its past was and "not-being" simply as God desires. It's relations to these others constitutes an element in its own novel actuality.

All is not meant to be negation, however. According to Whitehead, to be an actual entity is, after all, to be something definite. Whitehead's analysis of negative prehensions makes it rather clear that in every instance "reaction-from" what is given must simultaneously be "action-for" some other possible definite synthesis, and conversely every "action-for" another novel synthesis originates as a "reaction-from" the past with its settled forms of definiteness—and even "from" God with His Ideal lures for novel forms of definiteness. Thus its not-being those others constitutes a real relationship establishing what the entity actually is. This is what we should expect in a metaphysics where formless creative activity functions as the ultimate yet correlative principle with purely potential forms of definiteness.

In other words, there is more to the "creature's" activity than mere negative prehension, mere "Anaesthesia." For the end of every process of concrescence is the final satisfaction which is the novel synthesis of an individual actual entity, and not the mere annihilation of the past. An actual entity is constituted by its prehensions, and therefore there can be an actual entity only if some of its prehensions are positive. Nevertheless there is an
ontological priority here, for the emerging subject begins to be what it is initially by reacting to the past from which it in part is derived and which it will subsequently re-organize in a novel synthesis.

This can be stated in terms of freedom. While negative prehension functions as the intrinsic source of so called negative freedom, i.e. of "freedom-from" the extrinsic determinating causes; positive prehensions, both of the past and of novel possibilities, are the intrinsic sources of the positive dimension that freedom manifests, i.e. of "freedom-for" the actual occasion to determine itself as a definite existent according to its own subjective aim and in conjunction with the operations of its own level of mentality. The aim of the individual concreting actual occasion is to coordinate its negative and positive prehensions in terms of its level of mental activity and in so far as it is able given its particular environment.

Whitehead contends that like other "macrocosmic entities," human beings are nexus "built-up" of individual actual entities. In Chapter III, we attempted to explain the nature and division of these "derivative" entities with the aim of discovering man's place within the macrocosmic hierarchy. Because of the "derivative" nature of nexus, the division of the macrocosmic world has its basis in the division of the "microcosmic world." It was therefore necessary to begin by presenting Whitehead's explanation of the classification of individual actual entities.

The ideal is that there would be one genus of actual entities and that all actual entities would exemplify identical metaphysical principles and consequently be members of this one genus. Thus not even God would "be treated
as an exception to all metaphysical principles, invoked to save their col­
lapse"; rather, He would be "their chief exemplification." It turns out, however, that God is radically unique. For upon examination it is seen that, though exhibiting some basic similarities as temporal actual entities, many of the properties of God's nature(s)—for example, his eternality, non-tempor­
ality, and transcendence—are not at all found in actual occasions, nor can they be explained merely in terms of the categories that explain the actuality and activity of actual occasions. The extent of God's difference can be measured by the fact that serious consideration has been given to the question of whether Whitehead should have held that God is a society of actual entities.

When we turned to Whitehead's classification of temporal actual oc­
casions, we observed that he is intent on upholding the principle of the con­
tinuity of nature. Composed of similar metaphysical principles, actual oc­
casions will be differentiated on the basis of the degree to which the envi­
ronment—including God—and their powers of mentality are operative in their process of concrescence. Actual occasions are similar in that none of them has any principle in its metaphysical make-up not possessed in some degree by any other actual occasion. They are dissimilar in that each has more-or-less of than the others. Where the process of concrescence of an actual occasion is sufficiently more complex and where the activity of mentality is sufficient­ly greater, we have argued that in effect a critical threshold is crossed.

The result is the emergence of an actual occasion exhibiting unique activities, activities not to be found in lower grade actual occasions.

In the light of this interpretation, Whitehead's four-fold classifica-
tion of individual occasions was seen to signify that at certain discernible points in the degree of complexity and in the powers of mentality, actual occasions begin to manifest activities not found in "lower" type occasions, and that it is useful and proper to mark these points as dividing the known classes of actual occasions. Furthermore, these differences were seen to be mirrored when we distinguish the extent and nature of freedom manifest by actual occasions. Exercising the greatest degree of mentality and complexity, the highest grade actual occasions manifest a specifically different and higher kind of freedom: they are the least determined, the most novel, and the most free. So on down through the orders of actuality to the class of occasions that are most determined, least novel, and exercise the lowest kind of freedom.

Because of the "derivative" nature of nexus and societies, the division of individual actual entities serves as the ultimate basis in terms of which macroscopic entities are to be classified. Whitehead consistently classifies the macroscopic entities of our present cosmic epoch into four basic classes depending on their constitutive member actual occasions, and especially upon the presence and nature of the regnant member actual occasions. These four classes range from (1) the lowest kinds of simple enduring objects and the unspecialized corpuscular societies constituting all the types of inorganic material bodies; to the more specialized forms of societies evidencing various levels of life roughly associated with (2) vegetation, (3) non-human animals, and (4) human animals.

In brief, human beings are unique macroscopic entities because the
regnant actual occasions that dominate and organize the unique super-complex structured society that is a man are themselves uniquely higher level actual occasions as compared to those that constitute and dominate other societies and nexus—and so on down through the grades of societies and nexus. Similarly, the freedom manifest by macroscopic organisms corresponds to this classification. The freedom proper to human beings is, for Whitehead of a uniquely higher order as compared to the freedom exercised by non-human animals, plants, and inanimate macroscopic entities.

The problem of specifying the nature of human freedom was taken up in Chapters IV and V. To this end, we began by outlining Whitehead's conception of human nature. What distinguishes man among all the macroscopic organisms is that in him untold millions of centers of life are coupled with an extreme kind of unifying force, which is the personal society of actual occasions supported within as a part of the very being of the non-social nexus which is the brain. Thus the human person, body and mind or soul, manifests a unique type of unity and organization. This has as its source the living personal soul which supports and organizes and in turn is supported by the intricacy of bodily functionings.

To understand what this means in terms of human freedom, the process of concrescence of the "regnant actual occasions" constituting the personal soul was then investigated. It was shown that the high-grade freedom of these occasions is built-up in the process of concrescence which entailed a series of perceptive activities. Thus freedom was examined in the context of perception in the modes of causal efficacy, presentational immediacy, and low-grade
symbolic reference. It was also seen that in addition to these, the actual occasions constituting the personal human soul manifest a freedom that accompanies the conscious activity of the higher phases of concrescence we chose to call "intellectual conceptions." Exercising intellectual conception, the regnant actual occasions and thereby the human animal is able to "conceive of types of things in abstraction from exemplification." Only men can understand structure; only men can formulate scientific laws; only men can create science and philosophy; only men enjoy civilization; and only men possess language.

Human beings are capable of conceptual abstraction, of entertaining ideas apart from their exemplification within sensible particulars. As a consequence of this, human beings are capable of exercising a greater degree of freedom. In fact, this significantly greater degree amounts to crossing a critical threshold and makes man's freedom unique and not to be found in lower grade macroscopic entities. What distinguishes human freedom is that man is able to choose between this ideal or that, between this theory or that, between this course of action or that, and so forth on the basis of understanding at least implicitly what kinds of objects these are, and on the basis of understanding, again at least implicitly, what kinds of ends he is thereby establishing for himself. Finally, this unique form of human freedom was seen to be exercised in two distinct though related modes, freedom of thought and freedom of action directed either to speculative or practical ends.
B. Concluding Evaluation

Alfred North Whitehead is undoubtedly one of the most important philosophers of the twentieth century. He has written creatively and in many instances extensively, on a wide range of subjects that include logic, mathematics, science, the philosophy of science, and educational, social, and political philosophy. In addition, he has given a metaphysical exposition that stands alongside of the great speculative systems of Aristotle, Aquinas, Leibniz, Kant and Hegel. Process and Reality has rightly been called monumental, a landmark, a masterpiece in metaphysical speculation. This work, as well as Science and the Modern World and Adventures of Ideas, evidence a depth of vision, novelty of insight, and power of synthesis seldom equalled in the history of ideas. It hardly needs emphasizing, then, that it is impossible to offer anything like a comprehensive evaluation of Whitehead's philosophy in a few concluding pages. Our aim is much more modest. In what follows, we will suggest only what seems to us to be some of the more significant strengths and weaknesses of Whitehead's explanation of human freedom. It should be emphasized, however, that our criticisms of Whitehead's philosophy, both from within and from without that system, are meant as tentative observations rather than fixed opinions. We are still in the process of thinking and rethinking Whitehead's system in terms of our lived experience and in terms of our reading of the history of philosophy. Therefore the following is but an outline of what to us, and in some instances to others, as well, are some problems arising from Whitehead's analysis of human freedom.
One of the most important aspects of Whitehead's writings is his realistic respect for the stubborn and irreducible facts given within human experience. Whitehead's many criticisms of common sense experience are balanced by as many defenses on its behalf. Although Whitehead insists that there are no isolated facts and that there can be no facts apart from some theory of interpretation, at the same time he writes that in an important sense some facts are more fundamental than others—viz. the lived fact of human freedom—and that at least as regards these primary facts theory is to be dictated by fact, and not the other way around. More than that, he contends that the theory is to be verified by its ability to accommodate by way of explaining and not merely describing these and all the other facts within particular disciplines. For the philosopher no less than for the man of common sense or the scientist, the irreducible and stubborn facts are the foundations upon which explanations are base and even tested. On this we are in agreement with Whitehead.

Yet if we are not mistaken there is a lacuna in Whitehead's writings that tends to weaken the whole enterprise at the very beginning. For it seems to us that he does not adequately differentiate between either the various types of facts given on the many levels of experience or between the different formalities and methods employed by the intellect in its many acts of cognition. It is not clear, for example, how Whitehead means to distinguish between the flights of free imagination that characterize the metaphysical enterprise from those incorporated in common sense or science. Also, he sometimes writes as if the concepts used in the empirical sciences are able
to be more-or-less simply adopted by the metaphysician. ¹ In short, Whitehead has correctly distinguished the object or subject matter of philosophy generally and metaphysics specifically, but he has not, we judge, sufficiently specified the formality and method used by the philosopher. Consequently, while it is apparent that for Whitehead some facts are stubborn and irreducible, we do not know how in principle these facts are to be recognized. Nor, therefore do we know the precise relationship between fact and theory.

There can be no doubt that facts and explanations are somehow interdependent; that explanations are meant to explain fact and that often, if not always, the acknowledgement of a fact implies some explanatory theory. Few would disagree with this general formulation of the problem. There is much disagreement, however, as to the precise nature of this relationship. Our own position is basically in accord with that expressed by the late Yves Simon. The formulation of a fact consists in making an existential judgment under the guarantee of a sensation. In every such judgment of fact one must distinguish between the object of sensation, the judgment of existence, and the object of intellect.

Now what produces the diversity of types of facts is not the diversity of sensations. When the galvanometer moves, the layman and the scientist experience identical sensations, and yet the former knows only a vulgar fact the latter knows a scientific fact. Nor is it the existential character of the factual judgment: at the sight of the same sensible phenomena both learned and ignorant persons think that something really exists. But for the one it is something vulgar, e.g., the movement of a mirror and of the light it reflects, produced by some unknown cause; for the

¹For example, see his discussion of quantum theory in relation to the nature of actual occasions in SMW, pp. 52-56. This is developed in PR, for example pp. 176-79, 470-71, 12-23.
other it is something scientific, e.g., the closing of an electrical circuit. In effect, within the structure of a fact the object of sensation plays only a material role; the formal side is taken care of by the object of the concept. But, all diversity of types results from a formal diversity. Thus, what distinguishes the different kinds of facts is the diversity of concepts implied in the formulation of a fact; to a vulgar concept corresponds a vulgar fact; to a scientific concept, a scientific fact; and to a philosophic concept, a philosophical fact. It all depends on the intellect's interpretation, what the intellect reads in the object of sensation. If the interpretation is of a vulgar type, there will be a vulgar fact; if of a scientific type, a scientific fact; if of a philosophic type, a philosophical fact. From this it follows that even where the datum of sensation is exactly the same, the fact which science incorporates into itself cannot be identical with the fact that philosophy incorporates into itself. Moreover, as Simon observes,

if it is true that it is impossible to integrate into the system of philosophical thought any item borrowed from the system of scientific thought, it will be impossible to incorporate into philosophy any scientific fact, for a scientific fact connotes a scientific mind, with its characteristics which are opposed to those of the philosophical mind. Therefore the philosopher ought not to ape the scientist, nor vice versa, either as regards the acceptance of fact or the formulation of theory.

To us this implies that our common experience of sensible objects enjoys a priority over other data. It stands at the origin of our experience of matters of fact. To this extent our "vulgar experience" constitutes at least some of the stubborn and irreducible facts, to use Whitehead's term.


2Great Dialogue, p. 149.
All speculative conceptions will have to be measured by these facts. Merleau-Ponty well summarizes the reason for this priority:

All my knowledge of the world, even my scientific knowledge is gained from my particular point of view, or from some experience of the world without which the symbols of science would be meaningless. The whole universe of science is built upon the world as directly experienced and if we want to subject science itself to rigorous scrutiny and arrive at a precise assessment of its meaning and scope, we must begin by reawakening the basic experience of the world of which science is a second-order experience.¹

As we have seen, Whitehead, on the other hand, makes sensation—perception in the mode of low-grade symbolic reference—a derivative rather than a primary perceptive mode. Consequently he is able to conclude coherently that the macroscopic beings of our ordinary sense experience, what common sense takes as real individuals, are really derivative in their being, and that what is really real are imperceptible individual actual entities.

The difficulty with this as regards human freedom is that my immediate awareness of an act of free choice ordinarily is an experience on the macroscopic order, and one which usually entails sense perception. Thus I am aware of choosing to turn on the TV rather than finish the novel. But in Whitehead's philosophy such macroscopic experiences are really derivative and projected rather than immediately given in prescientific and prephilosophical sense experience as Merleau-Ponty et al suggests.

Before turning to the problem that arises as a consequence of considering macroscopic entities as derivative beings, a few observations concerning the materials discussed in Chapter II are in order. First, in seeking to formulate an ultimate explanation of the nature of the res verae, of the fully or really real, Whitehead evidences a profound grasp of the nature of philosophical inquiry. On this point he is within the spirit of the Western philosophical tradition stemming from Plato and Aristotle.

Second, we agree with Whitehead that radical monism is to be avoided only if the res verae are composed of really distinct principles whether God needs be so composed would have to be shown. According to the ontological principle, only individual actual entities are fully real. Everything else is either a principle of the being, or rather we should say of the becoming, of an actual entity, or else is derived in some way from individual actual entities. If this interpretation of Whitehead's position is correct, then problems arise with some interpretations of Whitehead's philosophy such as Hartshorne's doctrine of the "compound individual." Speaking of Whitehead's philosophy of organism Hartshorne says, "The theory of the enduring individual as a 'society' of occasions, interlocked with other such individuals into societies of societies, is the first complete emergence of the compound individual into technical terminology."¹ By compound individuals, Hartshorne means nexus and/or societies. The compound individual is thus an enduring individual substance (substance being regarded by Hartshorne as "simply the

technical terms for individuality as a philosophical category, "1) that is composed of other compound individuals, and so on until we reach the ultimate components, individual actual entities. As we shall see presently, the problem with this interpretation is that it violates the ontological principle, for Whitehead certainly writes in many passages that individuality and existential actuation are predicated properly and originally of an actual entity, and not of nexus.

Hartshorne's suggestion is misleading if we attempt to apply it to actual occasions. For individual actual occasions are not composed of other individual actual occasions, and therefore on the microscopic level of the fully real there are no compound individuals—individuals composed of parts that are themselves individuals. On the contrary, we have endeavored to show that individual actual entities are composed of principles none of which is itself an individual, a "that-which-is." By introducing creativity and eternal objects as "formative elements" Whitehead is in fact rejecting the idea that the ultimate individuals can be "compound individuals."

The point of our disagreement with Hartshorne, then, has to do with his interpretation of the reality to be ascribed to macroscopic entities in Whiteheadian metaphysics. While Whitehead clearly subscribes to the idea that some macroscopic entities are compounded of other macroscopic entities, it is certainly proper to ask in what sense macroscopic entities are "individuals" at all? In other words, given Whitehead's categorial scheme, can there really be anything like Hartshorne's "compound individuals?" The very

1Ibid., p. 194.
phrase seems contradictory! Furthermore, given our interpretation, it is
difficult to understand how a macroscopic entity could fully exist at all as
an "individual substance" let alone be "compounded."

Least there be some misunderstanding at this juncture, it should be
emphasized that our criticism of Hartshorne is directed primarily at his in-
terpretation of Whitehead. It is not meant to be a criticism of Hartshorne's
own philosophical position—or, at this point, with that intended by White-
head—with which we find much to agree. The question we are examining con-
cerns the status to be assigned to nexus and societies in Whitehead's writ-
ings. In this light our question is, given the formulation and the intent of
the ontological principle, can we ascribe to a nexus and to nexus of nexus
the kind of organic reality Hartshorne suggests?

Third, Whitehead's discussion of the composition of the *res verae*
entails serious difficulties. By making creativity his basic metaphysical
principle of activity, Whitehead has explicitly given priority to becoming
over being. In this system, change is the basic fact of existence, so much
so that whatever form actuality takes it can be only "becomingly"—or "chang-
ingly." As creatures of creativity, all actual entities, God included, neces-
sarily change. The processes of concrescence and transition are the two ul-
timate modes of this change. Endurance is a "mode of being" predicable of
nexus and societies, while strictly speaking actual entities, the *res verae*,
do not endure. But why is it necessary to identify change and activity, as
Whitehead does? For while every change, to be sure, necessarily involves ac-
tivity, it is not obvious that every activity precisely as activity necessari-
ly involves change. As Aristotle suggests, motion (which we may understand as signifying all types of change or becoming—we do not mean to imply, however, that all change is motion) is an imperfect kind of act,¹ and therefore we shall be mislead if we look to it as the primary analogue of activity. We think that the primary analogue of "perfect activity" might indeed be found in the lived human experiences of "perfect" activities such as contemplation, joy, and someother forms of love; which is to say that the broad concept of motion or change including both perfect and imperfect has an analogical unity.²

Another difficulty arises as a consequence of "conceiving" of creativity as unlimited and formless activity. The upshot of this identification it to locate a radical surdal principle at the heart of reality. In a sense, there is simply no explaining the self-creative activity of an actual entity in terms of causes other than itself. Whitehead introduces creativity as the final "explanation" of the fact that the actual activity is a novel concrescence, that is, in order to explain novelty qua novelty. Inasmuch as the ground of freedom is to be found in part in creativity it follows that in the end freedom also turns out to be irrational.

Recall that Whitehead compares creativity to Spinoza's one substance, Plato's receptacle, and Aristotle's material substrate, by which he implies that it functions in part as a material cause, a "that out of which." In a

¹ Physics, III, 1, 201a10-11; Metaphysics, IX, 6, 1048b 25-34.

manner of speaking, receiving a form, creativity is thereby made a determinate something, an actual entity: an entity possessing this definite mode of activity. But by locating a principle of novelty and therefore of freedom in the material cause and by conceiving it as activity that is totally formless, indefinite, lacking determination, it is necessary that freedom is ultimately conceived of as spontaneous and unintelligible activity. Now as Simon has observed, such conceptions are reminiscent of the doctrine of Epicurus, for whom freedom is explained as the outcome of the causeless swerve of the atom. ¹
While they disagree on the precise meaning of the term "freedom"—and on whether and to what extent humans are free—writers as diverse as Moritz Schlick, John Hospers, Corliss Lamont, and Yves Simon ² are agreed on one point at least. If we mean by freedom an act which is ultimately causeless, in the sense of being totally spontaneous in its initial negative moment, then it is impossible to understand how freedom could exist. This is to say that, it is impossible meaningfully to explain freedom as a radically causeless activity: you are merely juxtaposing incompatible terms. We think that Whitehead's formulation of the principle of creativity has the same result. It makes the free


act ultimately causeless—lacking formal specification—and radically unintelligible.¹ In this sense Whitehead has not succeeded in giving an adequate explanation of the basis of freedom.

This brings us to the fourth and final set of observations concerning Whitehead's analysis of the nature of individual actual entities. His discussion of the process of concrescence entails two additional difficulties that should be noted at least in passing. First, as Ushenko, Shahan, Stokes, and Eslick have pointed out,² and as Whitehead himself has admitted,³ on the one hand negative prehensions are indispensable to the system, and on the other it appears that they are ultimately unintelligible. That they are indispensable there is little doubt. When the various phases of concrescence were examined, especially in Chapters IV and V, we discerned that the activity of creativity manifests itself as different modes of negation and elimination: as mere negative prehension, as negative perception, and as negative intuitive judgment. Despite its importance, Whiteheadian scholars have not yet agreed


upon an adequate solution to this difficult notion—and in fact considering the fundamental role negative prehension plays it is rather surprising that so little attention is given to such a basic component of the system.

The second difficulty concerns the intelligibility of Whitehead’s analysis of the phases of concrescence. Because concrescence is not in time, but rather time is an abstraction from the succession of actual entities, how are we to understand the priority of one phase to another? There is little doubt that in some sense concrescence entails a division of the subject into a multiplicity of successive phases. The question is how are we to understand this in the light of the epochal theory of time? Arguing that it is not a temporal, logical, part-whole, or dialectical priority, Christian concludes that "we must accept it as something of its own kind."¹ Sherburne acknowledges the difficulty of finding a better suggestion, but he admits that Christian’s appeal to sui generis priority seems to many as ad hoc and unsatisfactory.² More recently, the critical study by Pols has caused Whiteheadian scholars to re-examine the doctrine of genetic analysis. Pols’ critique has touched off a flurry of responses and has even been the topic of a formal discussion at the recent meeting in Toronto of the "Society for the Study of Process Philosophies."³ The status of these developments is that as of yet there

¹An Interpretation, p. 81. ²A Key, p. 38.
is no consensus as to an adequate interpretation or rethinking of this segment of Whitehead's theory.

We have seen that the analysis of concrescence into distinct though inseparable phases manifesting priority and posteriority is absolutely indispensable to the system. Whitehead introduces the notion of phases to explain the very activity of self-development of the actual entity and to explain how in principle actual occasions—and thereby also nexus and societies—are differentiated both existentially and essentially. In so doing he attempts to explain the fact of freedom on both the microscopic and macroscopic orders. We must conclude that, as with the question concerning negative judgments, until an adequate resolution of these real difficulties is forthcoming it is not possible to be satisfied with Whitehead's explanation of our lived experience of human freedom, all of his most important and often valid insights to the contrary notwithstanding. For in this system our ordinary lived temporal experience of human freedom is said to be derived from the non-temporal freedom of individual actual entities, and therefore unless we have adequately explained metaphysical basis of microcosmic freedom, we shall not, according to Whitehead, be able to explain the freedom evidenced on the macrocosmic level.

To be sure, mention of the macroscopic universe assumes the interpretation introduced in Chapter III concerning the derivative mode of existence.

exercised by nexus and societies. This leads us to consider another tension in Whitehead's position which we think is ultimately irresolvable short of drastically modifying the system. For while intending to explain the ground of our common human experience of such things as stones, trees, cats, and men, Whitehead comes to conclude that whatever reality they do manifest is to be explained in terms of their individual actual occasions which alone are really real individuals. Everything else is thought to be "built-up" from them. A. H. Johnson states the matter precisely:

It is very important to grasp Whitehead's contention that the characteristics of a society are, without exception, the characteristics of at least some of its component actual entities. That is to say, no new characteristics emerge in the social organization which are not present in the component members.

If it be objected that Whitehead has not accounted for complex social organization, his reply can only be that in the last analysis we do discover societies in varying degrees of complexity. ①

We agree with Johnson that Whitehead does not wish to deny the reality of stones, trees, and men, for we do discover them, and that's a fact. But what kind of a fact? Here we must reintroduce Christian's distinctions con-

① Whitehead's Theory of Reality, p. 52. Cobb makes much the same point: "A nexus in its formal completeness has no other value for itself than the values of the occasions that compose it. An objectified nexus is always objectified by some actual occasion and has its value for and in that occasion. Intrinsic value is the value of individual occasions of experience." (A Christian Natural Theology, p. 100.)

The following examples give both meaning and support to Johnson and Cobb's statements. Whitehead speaks of the following as derivative: space and time as derivative from the transition of events (SMN, pp. 173-86; CN, p. 34; "Time"; PR, pp. 105-08, 442-43); macroscopic fluency as derivative from microscopic fluency (PR, pp. 320-26); life as derivative from actual entities and predicated secondarily of societies (PR, p. 156; MT, pp. 205-06; FR, p. 21 —yet, it will be recalled, this is apparently denied in AI, p. 266); beauty as derivative from actual entities and predicated secondarily of societies (AI, pp. 324, 328).
cerning the sorts of discourse found in Whitehead's writings. In presystematic language, it is perfectly proper to say that we discover stones, trees, and men; moreover, these are thought to be real. They are the data of ordinary concrete sense experience, one would say. In the post-systematic language, however, these concrete facts are explained as derivative abstractions formed in the later phases of concrescence by the emerging subject in accordance with the appropriate categorial obligations—especially "transmutation." In short, the perceptive actual occasion perceives as a nexus and/or society what in reality are individual actual occasions. But then in what sense are macroscopic entities real?

Whitehead is making an absolutely fundamental option. To the basic metaphysical question as to what is fully and really real in the final analysis, Whitehead has answered, "individual actual entities." These are the ultimate existents out of which everything else is explained. They are the primary physical existents of natural beings. Leclerc has presented a brilliant analysis of Whitehead's position on this subject and has well developed its meaning and implications. As he says,

If the atomic elements be the ultimate existents, then a body, which is a composite of these elementary constituents, is an aggregation, an Aristotelian ςφθε̣ς of them. Now this implies that, ontologically considered, body is different in kind from the atomic constituents; that is, body is an entity on an ontologically different level from that of the elementary constituents. Only the atomic elements are ultimate, or true, physical existents; a body can thus not be an ultimate existent but is an entity of a derivative kind.1

On the other hand, Leclerc points out that by developing a theory in which actual entities exercise real interrelatedness inasmuch as they are informed by some common eternal object as their defining character, Whitehead maintains "that he can have what Leibniz strictly could not, namely, a compound or body with a character of its own qua that compound." For it appears that Whitehead is well aware that unless the nexus and society sustain a defining character which is not ultimately reducible to that of its component individuals, i.e., unless there is some additional definite reality not present in the individual actual entities taken as a collection, then he has succeeded only in explaining away the macroscopic world as mere phenomena—as Kant and Leibniz had done each in their own way. The question comes down to this. In terms of his own principles, specifically the intent of the ontological principle, as it comes to be formulated in Process and Reality, can Whitehead coherently argue that nexus and societies sustain a defining characteristic which is not reducible to that sustained by the component individual actual entities? To this we fully agree with Leclerc's negative reply.

The only way, philosophically, for compounds to have a unity and a characteristic of their own qua those compounds, is for compounds to be admitted to the status of actual entities or real beings. And this entails the abandonment of the fundamental metaphysical theory which was adopted in the seventeenth century and which since then has come to be accepted as a tacit presupposition, that the real of actual entities, the ultimate


 physical existents, must be conceived as a restricted to the final constituents of compounds.\footnote{Whitehead explicitly rejects the view that compounds have the metaphysical status of actual entities, and consequently we think he is prevented from giving an adequate explanation of the metaphysical basis of human freedom. In our judgment, in the end he has not succeeded in explaining our lived experience of human freedom.}

Whitehead explicitly rejects the view that compounds have the metaphysical status of actual entities, and consequently we think he is prevented from giving an adequate explanation of the metaphysical basis of human freedom. In our judgment, in the end he has not succeeded in explaining our lived experience of human freedom.

There are many interesting and important facets to Whitehead's analysis of human freedom. We would like to conclude our study by noting three in particular.

only human beings exercise freedom—and consequently are moral agents. While not unique in the history of ideas, this doctrine of "pan-freedom," if we may so call it, does represent an important departure, then, from the mainstream of Western philosophical speculation by these distinguished and very original contemporary thinkers.

It is necessary to realize, however, that these men do not wish to deny that in some important sense humans exercise a different kind of freedom. None of them wish to deny the unique quality of human freedom properly understood. For all of them, only human beings manifest the higher kind of freedom that we rightly associate with the moral quality of existence.

Second, when we turn to Whitehead's analysis of this unique quality of human freedom, we discover a striking similarity between it and the Western tradition stemming from Aristotle. For it will be recalled that the freedom exercised by human beings was said to be directly related to the unique nature of human intellection. Whitehead maintains that because men are capable of what amounts to conceptual abstraction from sensible particulars, their freedom entails a real choice. For Whitehead, human freedom is therefore freedom of choice properly so called. For it is not merely a choice between this or that particular good thing, but between good things in the light of our intellectual conception of what we conceive to be our more remote and even ultimate purpose for acting. Therefore we are able to choose this or that good as so

many means to our ultimate end, and we are even free to establish our own ends. All of this is, in its general tenor, very Aristotelian and basically in accord with the pronouncements of common sense. This in no way must be interpreted to deny the great dissimilarities between Whitehead and Aristotelian tradition, however. Whitehead's rejection of substance, fixed species, and faculty psychology would alone suffice to deter any facile identity. Moreover, for an "Aristotelian," free choice is thought to be anything but a purely spontaneous act. Nonetheless, Whitehead's appeal to the unique mode of human cognition as an integral aspect of his explanation of man's unique freedom is within the Western tradition stemming from Aristotle.

Finally, Whitehead's explanation of freedom has a definite contemporary quality about it. Recall that Whitehead distinguishes between actual entities and thereby between macroscopic entities on the basis of their degree of complexity—of the process of concrescence—and their power of mentality. Where the macroscopic entity exercises a sufficiently greater degree of complexity and mentality, in effect a critical threshold is crossed. In the case of man, intellectual conception and free choice is born. As Adler has shown, it is just this type of explanation that enables contemporary scientists and philosophers to adhere to the evolutionary principle of continuity of nature on the one hand, and to the manifest fact of human uniqueness on the other.


See Adler, The Difference of Man, for references to many of the most important writers subscribing to this position.

Ibid.
Whitehead's genius is that he is one of the first philosophers to work out a complete metaphysical explanation that attempts to synthesize these two factors.¹

¹To our knowledge only Teilhard has endeavored a synthesis of similar magnitude and importance. Notable in this regard is his "Law of complexity and consciousness," as stated in The Phenomenon of Man, pp. 58-66.
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APPROVAL SHEET

The dissertation submitted by Thomas Francis O'Brochta has been read and approved by members of the Department of Philosophy.

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

May 18, 1973

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