

WHITEHEAD'S THEORY OF PROPOSITIONS

WHITEHEAD'S THEORY OF PROPOSITIONS
AND ITS RELEVANCE TO
LANGUAGE AND ONTOLOGY

By

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SCOPE AND CONTENTS:

To set forth and explain Whitehead's theory of propositions and to show how this theory is a repudiation of philosophies based upon (i) substance ontology and (ii) an uncritical use of ordinary language. Chapter I is intended to supply the philosophic bases necessary for an understanding of Whitehead's theory of propositions. Chapter II is a development of the doctrine of propositions with reference to: ontology, the notions of truth and falsity, and of error. The theory of relations and its bearing on the theory of propositions is also explained. In conclusion, chapter III is intended to show how Whitehead's theory of propositions may be used to question the legitimacy of an alleged fact-value dichotomy in current scientific method.

PREFACE

It is the aim of the present thesis to present a commentary on A. N. Whitehead's theory of propositions with special reference both to his critical attitude toward the philosophic use of "ordinary language", and to his repudiation of the notion of substance (in so far as that notion is referent to something which "requires nothing else in order to exist"). Because of the organic nature of Whitehead's writings, it is not claimed that this treatment of propositions is in any way exhaustive of the topic. Indeed, in view of the interconnectedness of every aspect of Whitehead's writings, the present topic would of necessity eventually come to the surface in a serious discussion of nearly any aspect of his thought. It is hoped, rather, that the present writing will shed light on some important aspects of process philosophy and in particular to show how intimately Whitehead's philosophic view of language, and his repudiation of the substance ontology are tied to his theory of propositions. Some details and implications of these ties will be developed.

It will soon be recognized that the theory of propositions arises from the problem of the relationship holding between form (which is universal and abstract) and actuality (which is particular and concrete). This is Plato's problem of Metexis which, of course, he attempts to solve by means of his Theory of Forms. It is this problem, with all its historical reformulations, that constitutes the backdrop for Whitehead's discussion of propositions.

The problem may be stated as follows: (i) There are actual events in the world which we experience in their full particularity and concreteness. (ii) Before (logically) these events become actual they must first be possible¹. (PR 72, 367) The oft-cited "Euclidean Square Circle" would be an example, and of course by no means the only example, of such as would not be included in a class of things which are possible. And for this very reason one would never expect to experience one in any way. (iii) The class, or configuration, of possibles (Forms of Definiteness, Eternal Objects, etc.) is somehow related to its correlative actualized set of events -- at least so far as some of the elements of a set of possibles are not merely possible. What is this relation? What is its ontological status in the world?

For Whitehead this many-faceted problem has never been satisfactorily solved and he sees its solution to be of central concern for the philosopher. Although the theory of propositions should not be thought of as Whitehead's entire attempt at the solution of this problem, it remains as one of the most fully articulated and possibly the most philosophically important aspects of that solution.

Before a full discussion of the topic can be begun it will be requisite to devote considerable space to an introductory chapter in order to clarify many of Whitehead's presuppositions, methods, and aims as well as to outline in brief some of his categoreal scheme in so far

¹Whitehead distinguishes the use of 'possible' from the use of 'real possibility' which latter he usually refers to as 'potentiality'. 'Possible' is then to be understood here in an unrestrictive sense. (PR 336-7)

as we will require the use of his terminology as we proceed.

This thesis is written under the intentionally imposed limitation of working almost entirely from Whitehead's later philosophical writings because of the ever present possibility of "constructing" views which, on close examination, may prove alien to his intentions. Though it is perhaps less to be feared in the present writing, this possibility is quite evident in other cases. For instance, one could construct a theory in an allegedly Russellian context which might incorporate diverse and non-coincident doctrines from different phases of Russell's philosophical development which, though well-documented, would falsify the author's intentions.

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T A B L E O F C O N T E N T S

PREFACE	v
ACKNOWLEDGMENTS	viii
LIST OF DIAGRAMS	x
LIST OF ABBREVIATIONS	xi
I. THE PHILOSOPHICAL BASIS OF WHITEHEAD'S THEORY OF PROPOSITIONS	1
1. General Approach	1
2. Philosophy	2
3. Method	5
4. Categoreal Notions	8
5. Language	14
II. THE THEORY OF PROPOSITIONS	20
1. Their Ontological Status	20
2. Types of Propositions	26
3. The Notion of Truth	29
4. Singular, General, and Universal Propositions	31
5. Propositions and "Qualities"	34
6. Propositions and the Theory of Relations	37
7. Propositions and Judgments	42
8. Symbolic Reference	45
9. The Problem of Error	50
III. CONCLUSION	56
1. The Significance of Propositions	56
Aesthetic Order and Logical Order	58
The Fact-Value Dichotomy	59
2. A General Qualification	64
BIBLIOGRAPHY	65

LIST OF DIAGRAMS

Successive Phases of Development of a Propositional Feeling	21-a
The Relationship Between Propositional and Intellectual Feelings	21-a
Three Formally Possible Types of Relation Between Actual Entities	38

LIST OF ABBREVIATIONS

Throughout this thesis Whitehead's principle works used are referred to by means of the following standard abbreviations. The names of publishers and the dates and places of publication are given in the bibliography on page 65.

AI	<u>Adventures of Ideas</u>
MT	<u>Modes of Thought</u>
PR	<u>Process and Reality</u>
RM	<u>Religion in the Making</u>
SP	<u>Science and Philosophy</u>
SMW	<u>Science and the Modern World</u>
S	<u>Symbolism</u>

THE PHILOSOPHICAL BASIS OF WHITEHEAD'S THEORY OF PROPOSITIONS

Section 1. General Approach

Perhaps the ideal introduction to a discussion of Whitehead's thought would be impossible to write. Indeed, Whitehead himself has expressed much concern and dissatisfaction with his own attempts in Process and Reality. The ordering or development of the material, because of the nature of his philosophy, seems not to be linear. Because of the interrelatedness² of all the key concepts employed it is easy to feel that some kind of bold and unwarranted postulational method has found its way into Whitehead's thought. Such appears to be the case if one attempts to make a first step into his philosophy in the traditional way in which one usually starts with the "undeniable" and "self-evident" deliverances of experience. This is the general starting point in the tradition from which Whitehead claims to have derived the large part of his immediate impetus -- mainly that period from Descartes to Hume. In reading Whitehead's mature metaphysical works (and this is most evident in Process and Reality) one may have the feeling that although Whitehead seems obviously to have a definite goal in mind, his exposition leads one around and about the main ideas. One feels that he is participating in an Indian attack on a wagon train instead of proceeding in a line-

²Whitehead calls this interrelatedness of fundamental concepts their 'coherence' and he uses the term to indicate that "...the fundamental ideas, in terms of which the scheme is developed, presuppose each other so that in isolation they are meaningless." (PR 5)

formation in the British tradition. (Perhaps this approach is intended.) Whitehead seems to have been well aware of his divergence from the customary procedure as is testified by his remark that, "The verification of a rationalistic scheme is to be sought in its general success, and not in the particular certainty, or initial clarity of its first principles." ... "Metaphysical categories are not dogmatic statements of the obvious; they are tentative formulations of the ultimate generalities." (PR 12) With this in mind we proceed to some more special aspects of Whitehead's thought.

Section 2. Philosophy

Whitehead's notion of what philosophy is at once assumes a high degree of importance for us and for our expectations as to what can be done in a philosophical approach to the topic presently at hand. The presuppositions of a thinker, whether or not they are consciously reviewed, certainly have a telling effect on the product of his thought. We must admit with Whitehead that "A great deal of confused philosophical thought has its origin in obliviousness to the fact that the relevance of evidence is dictated by theory. For you cannot prove (or disprove) a theory by evidence which that theory dismisses as irrelevant." (AI 284) In our present task we are fortunate in that we do not have to look far to find how Whitehead views philosophy. His view of philosophy can be described as modest yet hopeful; modest in the sense that there is a keen awareness and recognition of the limitations imposed by our being the kind of creature we are and by our dependence upon language which compounds the initial limitations of thought. Language, an important means of communication, presupposes thought and adds its own kinks to the fabric

of thought. "...In the use of language there is a double symbolic reference: - from things to words on the part of the speaker, and from words back to things on the part of the listener."(S 12) The point insisted on is that language is by no means a wholly transparent medium through which thoughts are conveyed. "Our understanding outruns the ordinary usages of words."(MT 68) However, in spite of Whitehead's avowed modesty, his belief in the need for an adventuresome attitude is never disavowed. "Speculative boldness must be balanced by complete humility before logic, and before fact. It is a disease of philosophy when it is neither bold nor humble, but merely the reflection of the temperamental presuppositions of exceptional personalities."(PR 25)

Although Whitehead spent much of his life as a mathematician and physicist he sees philosophy as a very different kind of activity. He is profoundly aware of the important role logico-mathematical thinking can (and should) play, yet he sees the two disciplines as essentially different. Unlike other great philosopher-mathematicians of the past, Whitehead is not led to the view that philosophy must pattern itself after mathematics. "The primary method of mathematics is deduction; the primary method of philosophy is descriptive generalization."(PR 15-16)

Whitehead sees speculative philosophy 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."(PR 4) But in spite of its using the methods of descriptive and imaginative generalization, philosophy is not confined to this methodology.

...philosophy is (also) the critic of abstractions. Its function is the double one, first of harmonising them by assigning to them their right relative status as abstractions, and secondly of completing

them by direct comparison with more concrete intuitions³ of the universe, and thereby promoting the formation of more complete schemes of thought.

...
 Philosophy is not one among the sciences with its own little scheme of abstractions which it works away at perfecting and improving. It is the survey of the sciences, with the special objects of their harmony, and of their completion. It brings to this task, not only the evidence of the separate sciences, but also its own appeal to concrete experience. It confronts the sciences with concrete fact. (SMW 126-7)

...
 ... (It) is the welding of imagination and common sense into a restraint upon specialists, and also into an enlargement of their imaginations. (PR 26)

Further,

The explanatory purpose of philosophy is often misunderstood. Its business is to explain the emergence of the more abstract things from the more concrete things. It is a complete mistake to ask how concrete particular fact can be built up out of universals. The answer is, 'In no way.' The true philosophic question is, How can concrete fact exhibit entities abstract from itself and yet participated in by its own nature? (PR 30)

Whitehead's philosophy has both rational and empirical aspects.

It is rational in its aim at being 'coherent' and 'logical'; it is empirical in its aim at being 'applicable' and 'adequate'. (PR 5) Whitehead is attempting to get beyond a purely phenomenalist description of experience to a realistic account of the objects of immediate experience by means of imaginative generalizations toward objects of mediate experience which must be presupposed by such a realistic interpretation. Furthermore, he claims that those sensations which we have that are severally "clear" and "distinct" are by no means the primitive elements of experience. They are, rather, elements in complex and relatively high levels of awareness where highly developed and specialized organs of perception are involved. (AI 289) The really primitive experiences are not readily available for observation.

³There is a good discussion of Whitehead's use of the term 'intuition' in A. H. Johnson's Whitehead's Theory of Reality (pp. 9-11).

They underlie and are presupposed by consciousness (much the same as are Leibniz's petites perceptions). It is interesting also to note Whitehead's view toward the interpretation of data. "It is the accepted doctrine in physical science that a living body is to be interpreted according to what is known of other sections of the physical universe. This is a sound axiom; but it is double edged. For it carries with it the converse deduction that other sections of the universe are to be interpreted in accordance with what we know of the human body."(PR 181-2)

A critical question now seems to be, how does Whitehead propose to do philosophy as he sees it?

Section 3. Method

It is evident that Whitehead's concept of what philosophy is has a considerable effect on his method of doing philosophy. His vivid awareness of the importance of theory (as mentioned above) leads him to say that, "Philosophic discussion in the absence of theory has no criterion of the validity of evidence."(AI 284) Whitehead's aim is to ground his philosophical claims in the totality of our experience⁴ and to develop a

⁴"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."(AI 291)

theoretic scheme in terms of which every element of that experience can be interpreted. (PR 4) It is important to note what this implies. Whitehead is consciously avoiding the error of depending on either a "purely empirical" basis for his scheme or on a "purely rational" one. Because he believes that our experience of the world is intelligibly relational in character he insists on the inclusion of both empirical and rational factors in the framing of his method. Indeed, he reports that Dewey asked him "...to decide between the genetic-functional interpretation of first principles and the mathematical-formal interpretation." It is evident how the illicit empirical-rational dichotomy would immediately bias the issue the moment Whitehead should opt for either one over the other. Whitehead's attitude is reflected in his answer to Dewey that: "Our present problem is the fusion of the two interpretations. The historic process of the world, which requires the genetic-functional interpretation, also requires for its understanding some insight into those ultimate principles of existence which express the necessary connections within the flux." (SP 132)

Whitehead recognizes that a person doesn't simply have experiences devoid of subjective colorings -- that one's experiences are partly dependent on previous experiences and so on. This 'subjective form' (as Whitehead calls it) is partly derivative from previous feelings which are inherited. Along with this inheritance comes the form the feelings assumed in the constitution of the previous past self. All this is experience of concrete entities as opposed to the more abstract elements of experience.

The frame of ideas in terms of which or through which one comes to grips with experience is of this more abstract nature. It employs

general and universal notions some of which are derived rather directly from experience by descriptive generalization. Others are arrived at by a more circuitous method of imaginative generalization. (It is to be noted, and it will be brought out more clearly later, that even this latter has its roots in concrete experience.)

Admittedly there are difficulties to be faced in the framing of these general ideas. It is supposed by Whitehead that in order to frame such a scheme in the first place, one would have to have an idea of what such a scheme would be like and what it could do. As stated above, Whitehead sees the ideal as a coherent, logical, necessary interpretation of every element of our experience that is at once applicable and adequate. (PR 4) The question now arises: what would such a scheme include as basic presuppositions? What ..."generic notions (are) inevitably presupposed in our reflective consciousness - presupposed, but rarely expressed in explicit distinction?"(PR 27)

Whitehead's answer to this question is his 'categorical scheme'. It is not the aim of the present thesis to discuss Whitehead's philosophy in full, so this treatment of his categorical notions will be somewhat incomplete and rather tailored to suit the topic of propositions and certain related areas.⁵ The next section deals with the material we will need to consider for our special purposes.

It may occur to the reader that an attempt at a formulation of this categorical scheme does not suggest an altogether clear or obvious

⁵Admittedly, the limiting of the discussion of categories to what seems to be of special concern in this thesis is somewhat of a risk, but it is hoped that the discussion will not suffer unduly because of it.

line of development. At least it is not clear as to what will be needed. Suffice it to say, that Process and Reality endeavours "to compress material derived from years of meditation." (PR x) And so far as his ultimate principles are concerned, "The sole appeal is to intuition." (PR 32)

Section 4. Categoreal Notions

The following discussion is intended to lay some of the needed foundation for the later development of the theory of propositions. The relations between the notions to be explained are not immediately apparent and are only cursorily noted. It is hoped that their relationships to one another will be more clearly brought out as we proceed. Even the meanings of the individual notions cannot be as fully articulated as one will find them in Process and Reality, because by their relational and mutually requisite natures, the meanings only become fully apparent as they are used (and the more they are used the better). It is unfortunate that this is the case but no immediate solution to the problem seems apparent.

"Actual entities ...are the final real things of which the world is made up. There is no going behind actual entities to find anything more real." (PR 27-8) We are told that if an entity is actual then that entity has significance for itself - self-enjoyment. This involves 'feeling' and subjective immediacy. Every actual entity has both a subjective and a superjective nature. The first refers to its being an experient subject; the latter refers to its being a potential object for an experient subject. The actual entity, in becoming, while at the same time 'enjoying' its own subjective immediacy, provides itself as a datum for future becomings. This is its superjective function. "...it belongs to the nature

of a 'being' that it is a potential for every 'becoming'. This is the 'principle of relativity'." (PR 33) Every actual entity is bipolar in that it has a physical pole and a conceptual pole. The conceptual pole arises from the physical pole and in so arising constitutes conceptual valuation, valuation up or valuation down. The function of the poles is called 'prehension'. And it does not in either case necessarily involve consciousness. Consciousness is rather a product of higher level integrations of physical and conceptual feelings.

Prehensions are "concrete facts of relatedness" and can be discriminated according to whether they are negative or positive (in the latter case they are termed 'feelings')⁶, and according to whether they are physical or conceptual. (PR 35) A physical prehension is defined as the prehension of another actual entity and a conceptual prehension is defined as the prehension of an eternal object.

Eternal objects are alternatively called 'Forms of Definiteness', 'Pure Potentials for the Specific Determination of Fact', or 'the carriers of potentiality into realization'. Each has an individual and a relational essence - the latter describes how the particular eternal object stands in relation to all other eternal objects. Because of this relational aspect of eternal objects, "...it is presupposed that no entity can be conceived in complete abstraction from the system of the universe, and that it is the business of the speculative philosopher to exhibit this truth." (PR 5) Eternal objects are Whitehead's attempt to circumvent some of the difficulties associated with the traditional terminology such as Plato's

⁶See (PR 268) for Whitehead's reason for attributing 'feelings' to the whole of the actual world.

"Forms" and the medieval "Universals". Though the name refers to the same kind of entity, its systematic meaning, as Whitehead develops it, is somewhat different from the traditional meanings. Eternal objects are real but non-actual, i.e., non-concrete. When an eternal object is responsible for a particular form of definiteness in a particular becoming actual entity, it is said to have ingressed. If the eternal object is derived from the determinate nature of a previous actual entity via physical prehensions (physical feeling), then that past actual entity is objectified for the later one which feels it. It is termed a datum or an object, but in either case, the process of objectification has taken place. This notion of objectification introduces a distinction between two species of eternal objects; they may be of either an objective or of a subjective species according to whether they function as determinative of the definiteness of an objectified nexus, which is the datum of a feeling, or of the subjective form of the feeling itself. It is a distinction between publicity and privacy. (PR 445)

'Concrescence' and 'creativity' are related notions which presuppose the notion of 'togetherness' which in turn, "presupposes the notions 'creativity',⁷ 'many', 'one', 'identity', and 'diversity'. ... 'Together' is a generic term covering the various special ways in which various sorts of entities are 'together' in an actual occasion. ... The 'production of novel togetherness' is the ultimate notion embodied in the term 'con-
crescence'. "(PR 32)

"'Creativity' is the universal of universals characterizing ulti--

⁷This is not logical circularity but rather mutual dependence.

mate matter of fact. It is the 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."(PR 31) The import of this is that in each becoming actual entity the superjective universe, as objectified, i.e., as datum, from this particular perspective is partially constitutive of (makes a difference to, is internally related to) this particular becoming entity. This constituting process, requiring the objectified universe, does not however, fully constitute the actual entity in question. It adds its own valuation - valuation up or valuation down. There may also be reversion or transmutation (both to be discussed later). And in the extreme case of aversion (valuation down) there may be complete elimination from feeling, i.e., negative prehension. In short, the actual entity reacts. It has its inception in the coming together of feelings projected from the superjective natures of 'perished' actual entities of the past; but this is not the whole story. In the later stages of the concrescence the actual entity 'completes' itself by itself. It isn't merely a collection but, rather, a novel entity with a new individuality embodying a new 'satisfaction'. "The many become one and are increased by one."(PR 32) And..."how an actual entity becomes constitutes what that actual entity is. ... Its 'being' is constituted by its 'becoming'. This is the 'principle of process'."(PR 34-5)

In all discussion concerning Whitehead's categoreal notions it is essential to bear in mind his constant awareness of the possibility of mistaking the abstract for the concrete. (he calls it the 'Fallacy of Misplaced Concreteness'.) It is largely in reaction to the historical tendency of philosophers to fall into this fallacy that he has written

Process and Reality. Whitehead has often been accused of reverting to ontologising in the face of epistemological difficulties. This is a very important accusation for his philosophy must be understood in clear view of his 'ontological principle' and the fallacies which he claims to follow its neglect. The principle states that "...actual entities are the only reasons; so that to search for a reason is to search for one or more actual entities,"(PR 37) or alternatively, "...that every decision is referable to one or more actual entities, because in separation from actual entities there is nothing, merely non-entity - 'The rest is silence'."(PR 68) However, "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'." (PR 73)

Perception⁸ is analysed into two types which, though not absolutely distinguishable from one another, illustrate relatively important divergences. These are called perception in the mode of causal efficacy and perception in the mode of presentational immediacy. Though a full and adequate discussion would occupy much space and cannot be elaborated here, let the following serve as points of contrast between the two modes: Causal efficacy is most immediately referent to physical prehension and only in this mode is the discrimination of 'before' and 'after' explicable. Spatiality, however, is only dimly perceived in this mode. Of the two modes causal efficacy is the more primitive. Presentational immediacy

⁸Strictly speaking, the developed account of perception goes beyond the description of categorial notions per se. Categories are universal and pertain to entities on all levels.

Section 5. Language

Finally, before proceeding to the main subject of the thesis, it is important to mention Whitehead's philosophy of language. It may be the case that how a philosopher views language largely determines how he frames his philosophy, or conversely that his philosophical thinking to a large extent affects his view of language. Perhaps neither possibility should be forgotten. In Whitehead's instance this seems particularly to be the case. His associations with Russell, who admittedly was strongly influenced by G. E. Moore, probably had some influence on his philosophic thinking and certainly his formal mathematical and logical studies have had a great influence in his systematic development. His constant references to the necessity of recognizing the place of logic attest to this fact. "Speculative boldness must be balanced by complete humility before logic, and before fact."(PR 25)

The relationship between philosophy and language, as Whitehead sees them, is one of the unavoidable difficulties we must face. Since philosophy is so concerned with the explanation of experience and since "Language is one of the great storehouses of human experience", philosophers must of necessity have recourse to language in order to profit from the past to any appreciable degree beyond mere memory.(PR 7) But, at the same time, we are warned by Whitehead that, "It is misleading to study the history of ideas without constant remembrance of the struggle of novel thought with the obtuseness of language."(AI 153) The point being insisted upon by Whitehead is that our experiences are far richer in content than is our capacity for expressing that content in language. More specifically, Whitehead claims that every proposition has a richness of

detail that cannot be rendered by linguistic expression. In discussing the ontological status of propositions, this thesis attempts to elaborate more fully the implication here made that there is a fundamental distinction between propositions and verbal expressions of propositions. Hence, though language is referent to experience, and in so being adds to experience, it is not coextensive with that experience to which it is an actual reference. And the reason is not confined to the trivial one that language cannot be self-referent. In a statement which is admittedly not self-justifying, but which is strongly buttressed by the whole of Process and Reality, Whitehead makes this point clear.

It is merely credulous to accept verbal phrases as adequate statements of propositions. The distinction between verbal phrases and complete propositions is one of the reasons why the logicians' rigid alternative 'true or false' is so largely irrelevant for the pursuit of knowledge. (PR 17)

"Language almost exclusively refers to (perception in the mode of) presentational immediacy as interpreted by symbolic reference." (PR 263)

Those aspects of our full experience which include perception in the mode of causal efficacy are conspicuously absent from linguistic expression. This not to say that we never so refer but that, as a matter of fact, we seldom do... This tendency is even more pronounced in certain philosophical circles which have been strongly influenced by Hume's atomistic doctrine of external relatedness. There seems always to be the fear that one will assert some "philosophically unjustifiable" doctrine or relatedness.

Another aspect of language which must be taken into consideration is what Whitehead calls its 'ellipticity'. Language cannot be understood apart from the fact that its meaning always depends, in part, upon the particular circumstances of its use. Whitehead cites an example: "...the word 'Caesar' may mean a puppy dog, or a negro slave, or the first Roman

Emperor."(PR 397)

One of the main problems of philosophy, Whitehead tells us, is the tacit acceptance of common modes of speech. (The appeal to ordinary language) Incidentally, the most common criticism levelled at Whitehead is concern for his "uncommon divergence" from accepted linguistic usage. Whitehead is well aware of the difficulty and he even criticises the ineptness of his own attempts to meet it; but, at the same time, he refuses to deny the necessity of trying. He discusses the problem briefly in Modes of Thought.

There is an insistent presupposition continually sterilizing philosophic 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.

The Fallacy of the Perfect Dictionary divides philosophers into two schools, namely, the 'Critical School' which repudiates speculative philosophy, and the 'Speculative School' which includes it. The critical school confines itself to verbal analysis within the limits of the dictionary. The speculative school appeals to direct insight, and endeavours to indicate its meanings by further appeal to situations which promote such insights. It then enlarges the dictionary. The divergence between the schools is the quarrel between safety and adventure. (235-6)

Whitehead's whole notion of the philosophic venture precludes the enjoyment of this kind of "safety". "The very purpose of philosophy is to delve below the apparent clarity of common speech. In this connection it is only necessary to refer to Socrates."(AI 285)

We have sketched a small picture of what Whitehead thinks of language in its relation to speculative philosophy. It remains to see what Whitehead, as a philosopher, proposes from the standpoint from which he views the problem. It certainly seems as though something must be done

if philosophy is to have any chance of escaping the preconceptions traditionally associated with common usages. "Common usage" here refers equally to common philosophical terminology (even though it may in itself be of a technical nature) as well as to the more ordinary non-technical modes of speech.

Whitehead's philosophy "redesigns language in the same way that, in a physical science, pre-existing appliances are redesigned. It is exactly at this point that the appeal to the facts is a difficult operation. This appeal is not solely to the expression of the facts in current verbal statements. The adequacy of such sentences is the main question at issue." (PR 16)

In response to the now obvious need to alter existing modes of expression in order to perform tasks generated by the special requirements of his philosophic thought, Whitehead proposes and executes at least two distinct types of change: (i) the coining of new words, and (ii) the extension of the meanings of current words to a level of generality consonant with their capacity for variable application.

An example of the former would be his notion of 'concrecence'. His practice of coining new words for new and/or technical concepts has a long history and seems not to need much explicit justification, but the latter of the above-mentioned practices is often viewed with disdain since it often imposes strange connotations (and thereby meanings) on pre-existing uses of terms.

Whitehead's position on this matter parallels his choice of adventure in the place of security; of being a speculative thinker rather than a "critical" philosopher. His views are presented quite clearly in the following:

In framing a philosophic scheme, each metaphysical notion should be given the widest extension of which it seems capable. It is only in this way that the true adjustment of ideas can be explored. More important even than Occam's doctrine of parsimony - if it be not another aspect of the same - is this doctrine that the scope of a metaphysical principle should not be limited otherwise than by the necessity of its meaning. (AI 304-5)

And,

There is no justification for checking generalization at any particular stage. Each phase of generalization exhibits its own particular simplicities which stand out at just that stage, and at no other stage. There are simplicities connected with the motion of a bar of steel which are obscured if we refuse to abstract from the individual molecules; and there are certain simplicities concerning the behaviour of men which are obscured if we refuse to abstract from the individual peculiarities of particular specimens. In the same way, there are certain truths, about the actual things in the common world of activity, which will be obscured when attention is confined to some particular detailed mode of considering them. These general truths, involved in the meaning of every particular notion respecting the actions of things, are the subject matter for speculative philosophy. (PR 25)

Perhaps Whitehead's use of the words 'feeling' or 'conceptual' are good examples of such extensions of meaning. In both cases the terms are taken to apply to every element of reality. Every element of reality is a "drop of experience" and as such it has 'feelings'. From every physical feeling there arises a conceptual feeling. Now, immediately with this introduction of a special usage of a term there is at the same time the danger of a strong inertial tendency to interpret the term in the previous more familiar way and/or to evaluate its usage according to criteria essentially associated with it in the previous framework of thought. Possibly the previous schema retains its original use or validity only under a new qualification; that qualification including, among other things, that the previous usage does not exhaust the valid extension of the meaning of the term.

Again, Whitehead's uncommon awareness of the problem can hardly

be matched.

The technical language of philosophy represents attempts of various schools of thought to obtain explicit expression of general ideas presupposed by the facts of experience. It follows that any novelty in metaphysical doctrines exhibits some measure of disagreement with statements of the facts to be found in current philosophical literature. The extent of disagreement measures the extent of metaphysical divergence. It is, therefore, no valid criticism on one metaphysical school to point out that its doctrines do not follow from the verbal expression of the facts accepted by another school. The whole contention is that the doctrines in question supply a closer approach to fully expressed propositions. (PR 18)

II

THE THEORY OF PROPOSITIONS

Section 1. Their Ontological Status

In the discussion following, the major concern is with ontology. It is the aim of this section to take seriously Whitehead's statement that, "...all difficulties as to first principles are camouflaged metaphysical difficulties. Thus also (epistemological difficulties are) only solvable by an appeal to ontology." (PR 288) It is presupposed that there are difficulties associated with the topic of propositions that are of an epistemic nature. Thus the following discussion of propositions will trace the genetic development along successive phases of integration of the various aspects of any particular proposition. The singular proposition is taken to be the fundamental type from which arise all other more complex types. Throughout the discussion it is intended that Whitehead's 'ontological principle' be the criterion by which every additional element or phase is justified. The ontological principle states that: Everything must be somewhere and that 'somewhere' is always referent to an actual entity. Actual entities are the only actual places in the universe. Moreover, 'everything' would include 'Forms' or 'Eternal Objects', 'meanings', and 'propositions'.

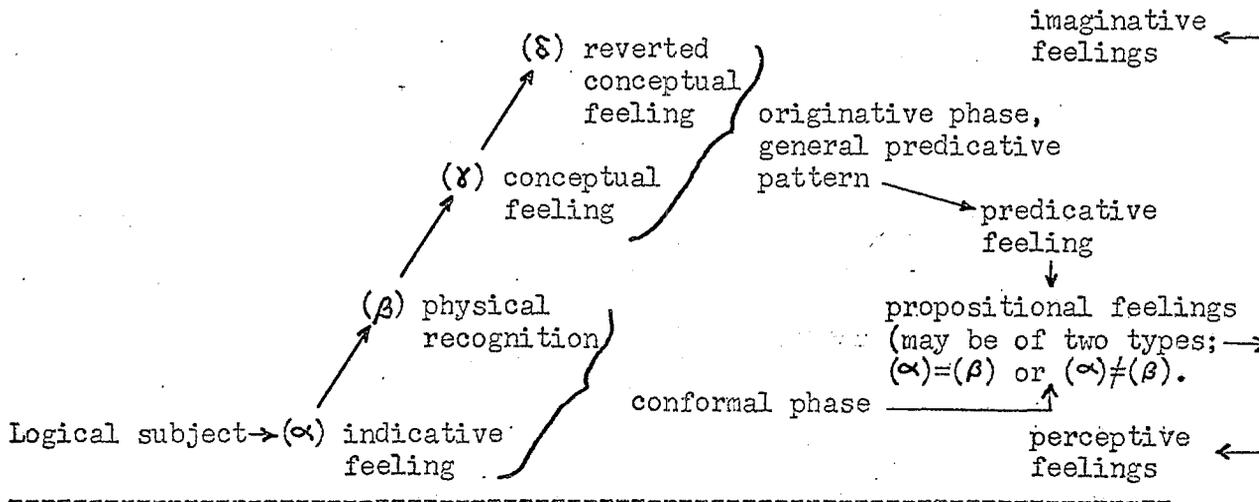
It must first be noted that, for Whitehead, 'propositions', in the correct understanding of the term, are always 'hybrid' entities. By 'hybrid' it is meant that they are ontologically hybrid. They are not

fully concrete nor are they fully abstract; they are both concrete and abstract.⁹ They are constituted by both physical feelings (feelings of other actual entities) and conceptual feelings (feelings of eternal objects) in contrast. It is a unity under contrast. The unity derives from the subjective unity of the prehending actual entity. The contrast obtains from the difference between the physical and conceptual aspects.

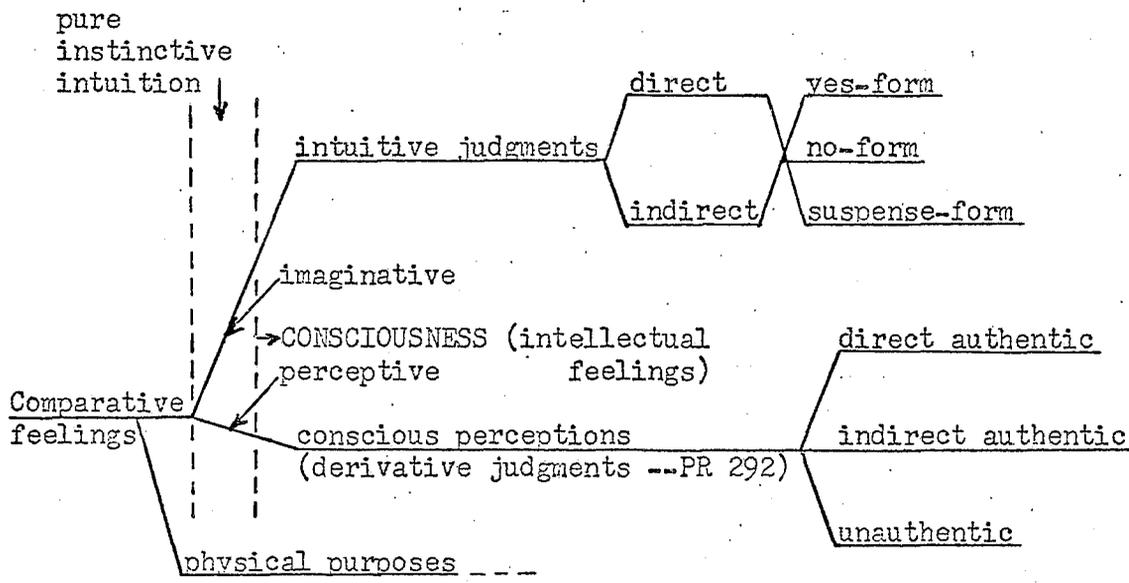
As just mentioned, "According to the ontological principle, every proposition must be somewhere. The 'locus' of a proposition consists of those actual occasions whose actual worlds include the logical subjects of the proposition."(PR 283) The 'actual world' of a becoming actual entity is the nexus of actual entities in the universe correlate to that actual entity. The relations between it and members of its actual world are internal to it and external to all actual entities in its actual world. (Relations will be the subject for later discussion.) For example, "The ground is covered with snow", is a statement of a proposition referent to a logical subject (the ground) in my actual world (I feel it). On the other hand however, "My son has measles", is not even a proposition in the correct use of the word. It is rather, a statement referent to a pure possibility which happens not to obtain in fact. Because presently I have no son, there is no such logical subject in my actual world. One of the requirements for propositions has not been met. It is important also to note that the logical subjects must always be either actual entities or nexūs of actual entities. It is for this reason that Whitehead says that

⁹This use of 'abstract' is not to be construed as a predicate of conceptual feelings, but rather, it refers to the data for conceptual feelings - eternal objects.

SUCCESSIVE PHASES OF DEVELOPMENT OF A PROPOSITIONAL FEELING



THE RELATIONSHIP BETWEEN PROPOSITIONAL AND INTELLECTUAL FEELINGS



propositions are always either true or false. There is not the third possibility of the "?" truth-value one often finds in three-valued logics. Indeed, "?" cannot qualify a 'proposition' in Whitehead's use of the term; it rather refers to the statement of a 'pure possibility'. Given the logical subject as actual, the predicate (predicative pattern) either fits or it doesn't. Judgment may be suspended, but the proposition is either true or false.

Propositions have their origination in physical feeling (feeling of another actual entity or nexus of actual entities). This phase of feeling in a proposition is of a concrete entity. The actual entity, or nexus of actual entities, physically felt as objectified in the datum is the logical subject of the proposition. This primary feeling of the logical subject is called the 'indicative feeling' (α in the diagram). This indicative feeling gives rise to another physical feeling akin to it which Whitehead calls the 'physical recognition' or 'physical recollection' (β in the diagram). Here certain eternal objects determinative of the definiteness of the datum are singled out. The indicative feeling is a bare "it" lacking individual character of its own, but the physical recognition assumes an individual character, (by selection of certain eternal objects) which is partly determined by the subjective form of the actual entity feeling it. Subjective criteria of relevance are here operative.

These phases of physical feeling in the origination of a proposition are alternatively referred to as: the 'primary', 'receptive', or 'conformal' phases. The actual entity feeling the proposition cannot change what it feels physically; it can only influence how it feels it. The question of what is felt is decided only on the basis of compatibility

and incompatibility and not by active choice. All that can be felt is felt. (PR ix, 41, 335, 353) The relevance of those feelings once felt is another matter and must in part await subjective valuation. An instance of incompatible physical feelings might be shown where one places a hand on the center of one side of a door in order to feel its surface texture. In this case, because of physical incompatibilities, one cannot, with the same hand at the same time,prehend the surface texture on the reverse side of the door. It is true that he would be feeling every bit of the door but some parts under different aspects of objectification. For this reason, though the texture on the reverse side is not immediately felt, the whole door is felt (some parts mediately). That which is not immediately felt is responsible for the door's solidity, resonance (when struck), etc.

These conformal (physical) feelings are very important in Whitehead's philosophy for they transmit information, emotional tone, valuation, etc. via their vector character from the past through the present into the future. As with Descartes' ball of wax, where the heat from his hand caused the wax to soften, the vector transmission of energy involved is here interpreted as an example of physical feelings of the conformal type. In this primitive example we find negligible transmission of emotional tone or valuation, but rather, the wax conforms to the temperature, and eventually to the form, of his hand.

In the case of propositions we find that conformal feelings are fast followed by conceptual feelings (X in the diagram) arising from them; in this case from the physical recognition. We are now faced with a 'hybrid' feeling. It has both physical and conceptual elements comprising

its unity. Its unity obtains from the unity of the experience of its pre-
 hending subject. In 'hybrid' feelings there are two ways in which suc-
 cessive phases of development can occur: (i) a 'physical purpose' may re-
 sult, or (ii) a proposition may arise. In the former case, the conceptual
 feeling of an eternal object, arising from the prior physical prehension,
 may lose its element of universality. "...The eternal object as a mere
 potentiality, undetermined as to its physical realization, may lose its
 indetermination, i.e., its universality, by integration with itself as an
 element in the realized definiteness of the physical datum of the physical
 prehension." In this case there is valuation up or valuation down, or in
 keeping with Whitehead's terms, 'adversion' or 'aversion' with respect to
 the particular eternal objects realized as determinate of the definiteness
 of the physical datum. (PR 280)

In the second case the conceptual feeling does not lose its dis-
 tinctively 'potential' character. It is no longer a 'pure possibility'
 with reference to 'any' logical subjects, rather, it is a possibility for
 realization (which may or may not already be realized). Because of the
 unitary character of the hybrid feeling it is referent to 'just those'
 logical subjects felt in the conformal phase. (PR 398-9)

In the derivation of the conceptual feeling from the physical rec-
 ognition there is the possibility of the entertainment of certain eternal
 objects partially diverse from the eternal objects determinative of the
 definiteness of the logical subjects (S in the diagram). This is possible
 through conceptual reversion where, because of the relational essences of
 the eternal objects formative of the physical recognition, there is a ready
 transfer from them to the prehension (feeling) of related but novel eternal

objects in the conceptual phase.¹⁰ A classic example of this is to be found in Hume's Treatise where he discusses the derivation of ideas from previous impressions. One exception to the general rule is mentioned by Hume. It is the example of the "missing shade of blue". According to the example, Hume allows that it is possible to have an idea without its previous impression usually necessary for the idea to be perceived. This may happen in the case where we are hypothetically told that a person has had impressions of every shade of blue except for one particular shade which he has never experienced. Hume allows the possibility of forming an idea of that shade without its antecedent impression. This example is counter to his general principle that all ideas must be derived from antecedent impressions, so this example is dismissed as merely an extraordinary occurrence not worthy of serious consideration. For Whitehead quite the reverse is the case. The possibility of such a phenomenon depends on the above-mentioned 'conceptual reversion' which is centrally important, for it makes possible real novelty (apart from novel combinations) and in large part is responsible for individual freedom. It is because of the possibility of reversion that one is not completely tied to the past or to certain illuminated aspects of the past. It is the whole ground of the possibility of anticipation of the future or of any other consideration of 'possibilities' which loom large in importance in nearly all moral considerations. According to Hume's stated first principles,¹¹ we could not

¹⁰ So far as we know, the conceptual operations, wherein reversion is possible, are of negligible significance in "non-living", "inorganic" actual occasions. (PR 269)

¹¹ In this discussion I refer to Section I, of Part I of the First Book of the Treatise, Selby-Bigge ed.

have an idea of the present as projected into the future. The only possibility he provides is that of "novel relations" of previous ideas for which we do have impressions. The catch is, however, that his first principles do not strictly justify these "novel relations" of ideas; for we remember that "relations" are ideas for Hume also and as such must have their antecedent impressions. It is here suspected that these novel relations arise in the mind in the same way as does the missing shade of blue.

Whichever type the derived conceptual feeling becomes; either (X) strictly derived from the physical recognition, or (S) derived from, but with some novel disparity from, the conformal phase, it forms the predicative pattern which is the datum for a predicative feeling (still conceptual) derived from it and entertained in contrast with the conformal feeling (physical).

The entertainment of this contrast in a unity of feeling is what Whitehead calls a propositional feeling - a feeling of a hybrid entity, the proposition. It might be noted here that propositions depend for their existence upon their prehending subjects. They are not self-created in the sense that an actual entity is. Their unity is imposed.

Section 2. Types of Propositions

Propositional feelings are classified into two distinguishable types according to whether the indicative feeling and the physical recognition are identical or different. In the first case we have what are called 'perceptive feelings' and in the latter case we have 'imaginative feelings'. Perceptive feelings in turn may fall into one of three subdivisions which shade off into one another depending on whether or not reversion or transmutation have occurred in the derivation of the conceptual

feeling from the conformal phase of the hybrid feeling.

(i) Direct authentic perceptive feelings arise where there is no reversion in the conceptual phase. The predicative pattern arising in the conceptual phase (χ) is derived directly from the physical recognition (β). There may still be varying degrees of valuation, aversion, adversion, etc., but the datum of the conceptual feeling is restricted to the physical recognition. There is no novel datum, i.e., datum not already felt physically, in this type of propositional feeling. This type of proposition must be true. It is a feeling of what is.

(ii) Indirect authentic perceptive feelings arise where there is no reversion but where there is transmutation in the derivation of the originative (conceptual) phase from the conformal phase in the propositional feeling. Transmutation¹² occurs, in the sense now referred to, when in accordance with conceptual valuation or conceptual reversion, "...the proposition ascribes to its logical subjects the physical enjoyment of a nexus with the definition of its predicate; whereas that predicate may have only been enjoyed conceptually by those logical subjects. ... Unless it is understood for what it is error arises." (PR 40, 401)

(iii) Unauthentic perceptive feelings occur in the situation where there is reversion (δ) in the derivation of the predicative feeling from the physical recognition. The predicative pattern has incorporated eter-

¹² Transmutation may also occur in the following way: when in accordance with conceptual valuation or conceptual reversion, the prehending subject feels a multiplicity of individual actual occasions each qualified by the same eternal object, the prehending subject may transmute the multiplicity into a unity felt as a single nexus qualified by the same eternal object. (PR 40)

nal objects diverse from those determinative of the definiteness of the conformal phases. The predicative pattern is not totally diverse from those eternal objects responsible for the particular definiteness of the conformal phases; but, because of the relational essences of those eternal objects, it is possible for the prehending subject to entertain related eternal objects which are not actually ingressed in the conformal phases. Novelty has been introduced. "The predicate is thus distorted from the truth by the subjectivity of the prehending subject." (PR 400) Whitehead calls this an example of "tied imagination". It is tied to the ultimate fact of the logical subject because the physical feelings of the conformal phase are identical.

Examples of the most primitive kinds of perceptive feelings cannot readily be given for they do not involve consciousness. However, in conscious perception, which is of a higher level of integration of these primitive types, one can cite examples that illustrate essentially what is being said by Whitehead about this more fundamental level of experience. Take the example of a stage-player. The first mentioned above, direct authentic perceptive feelings, would be illustrated by a spectator's having a clear perception of the player and his surroundings on the stage before him. An example of indirect authentic perceptive feelings might occur where the spectator entered the playhouse and unexpectedly came upon a player rehearsing a scene portraying anger. The spectator might mistake his actions for real anger via transmutation. Unauthentic perceptive feelings would be illustrated if the spectator happened to be a fellow player entering rehearsal a little late and came upon a stagehand arranging props and mistakenly identified the stagehand as one of the players.

In the case where the two physical feelings of the conformal phase are different, i.e., where the indicative feeling and the physical recognition are not identical, we no longer have perceptive feelings but imaginative feelings, one might say of the "untied" or free type. Because of the relative diversity between the indicative feeling (α) and the physical recognition (β), the conceptual feeling (derived from β), and hence the predicative pattern of the proposition, is no longer strictly tied to the logical subject. According to Whitehead, there is no absolute distinction between the two kinds of propositional feelings-- perceptive and imaginative. Depending on how much the indicative feeling and the physical recognition differ the amount of "free imagination" may be great or small. In the case of imaginative feelings there may or may not be reversion. The proposition may be true or false. "...the proposition is felt as an imaginative notion concerning its logical subjects."(PR 402-3)

Section 3. The Notion of Truth

In the foregoing there is frequent reference to "truth". Its meaning will now be stated briefly. In its primary and most fundamental sense, the notion of truth requires the notion of a proposition - and in the following way: It is always a proposition that is true or false. And,

...The truth of a proposition lies in its truth-relation to the nexus which is its logical subject. A proposition is true when the nexus does in reality exemplify the pattern which is the predicate of the proposition. Thus in the analysis of the various component factors involved the proposition, if true, seems to be identical with the nexus. For there are the same actual occasions and the same eternal objects involved. But in all analysis there is one supreme factor which is apt to be omitted, namely, the mode of togetherness. The nexus includes the eternal object in the mode of realization. Whereas in the true proposition the togetherness of the nexus and the eternal object belongs to the mode of abstract possibility. The eternal object is then united to the nexus as a mere 'predicate'.

Thus a nexus and a proposition belong to different categories of being. Their identification is mere nonsense. (AI 313-14)

A nexus is a plurality of actualities whereas, "A proposition is a notion about actualities, a suggestion, a theory, a supposition about things. ...It is an extreme case (simple) of Appearance." (PR 312-13) (emphasis added) Thus for Whitehead, "Truth is a qualification which applies to Appearance alone. Reality is just itself, and it is nonsense to ask whether it be true or false. Truth is the conformation of Appearance to Reality. This conformation may be more or less, also direct or indirect." (AI 309) And, "...within any type of truth-relation a distinction arises. The Reality functions in the past, the Appearance is perceived in the present." (AI 317) The Reality of the past refers to the actual experience of physical feelings of the logical subject which are prehended in the early phases of the propositional feeling. The Appearance of the present requires conceptual feelings in the later stages of the proposition where consciousness may arise from a contrast between the conformal phase and the conceptual feelings amplifying certain aspects and contrasting with certain aspects of the conformal feelings. It is not implied that the Appearance is not real but the point in question is whether it is real in the same sense in which it is taken to be real, i.e., as really qualifying the logical subjects.

In later phases of integration where propositional feelings are entertained in comparison with the indicative feelings, from which they are in part derived, we find the origination of consciousness¹³ (as the subjective form of what Whitehead calls 'intellectual feelings'). This

¹³ Thus we see that consciousness is essentially dependent upon comparative feelings involving propositions.

involves an 'affirmation-negation contrast'. It is consciousness of the contrast between "what is" and "what might be". The former is a way of describing physical feelings of "the Reality of the past" (the very proximate past in an early phase of the more complex unity of the comparative feeling); the latter is essentially referent to propositional (hybrid) feelings of "the Appearance of the present" as illuminated in consciousness. This Appearance of the present always contains some partially indeterminate aspects (indeterminate so far as the prehending subject is concerned). These indeterminate aspects are conceptual in nature and as such concern eternal objects which, though they retain for their prehending subject some degree of potentiality or indeterminateness as to their actual ingress, may really be qualifying their logical subjects. Whether or not these eternal objects formative of the predicative pattern are really qualifications of the logical subjects in the way they "Appear" to be, determines whether or not the proposition is true.

Section 4. Singular, General, and Universal Propositions

Returning now to the more fundamental aspects of our discussion we focus on the discrimination of propositions according to levels of generality. The preceding diagram may be helpful to keep some of the foregoing distinctions in order and in recognizable relation to one another. According to Whitehead, and as already mentioned, singular propositions are taken to be the basic kind from which all others are derived. He contrasts their definitions as follows: Singular propositions are, "the potentiality of an actual world including a definite set of actual entities in a nexus or reactions involving the hypothetical ingress of a definite set of eternal objects." General propositions differ from singular

propositions by the generalization of "one definite set of actual entities" into "any set belonging to a certain sort of sets". Universal propositions differ from general propositions in that "the sort of sets" includes "all sets with potentiality for that nexus of reactions". (PR 282-3)

It is evident from the above that the level of generality of a proposition concerns its logical subject. Again referring to our schematic representation of the development of propositions, we see possible indications of where these propositional types may occur.

In perceptive propositional feelings, where the indicative feeling (α) and the physical recognition (β) are identical, the logical subjects of the proposition are, as mentioned above, "tied" to the particularity of the initial physical feelings (hence the term "conformal phase"). This apparently puts some restriction on the level of generality accruing to the logical subjects in such cases. Keeping in mind Whitehead's definitions of general and universal propositions cited above, it seems as though one is forced to acknowledge that universal propositions would not occur on the strictly perceptive level. For we probably never perceive "all sets (of nexūs) with potentiality for (a certain) nexus of reactions". The question of whether general propositions¹⁴ occur on a strictly per-ceptive level seems more difficult to answer. Whether or not we ever perceive "any set belonging to a certain sort of sets", which is Whitehead's characterization of the level of generality required for the logical subject of a general proposition, may seem at best questionable. However,

¹⁴Cf. Whitehead's discussion of a type of 'general' proposition in Process and Reality, pp. 300-303.

Whitehead does not intend that his definitions of general and universal propositions, as noted above, be rigidly adhered to as exhaustive of the notion of generality. For he says:

...In a proposition, the eternal object, in respect to its possibilities as a determinant of nexūs, is restricted to (its) logical subjects. The proposition may have the restricted generality of referring to any among these provided logical subjects; or it may have the singularity of referring to the complete set of provided logical subjects as potential relata each with its assigned status, in the complex pattern which is the eternal object.

...The set of logical subjects is either completely singled out as these logical subjects in this pattern or it is collectively singled out as any of these logical subjects in this pattern or as some of these logical subjects in this pattern. (PR 393-4)

Upon examination of propositional feelings of the imaginative type we see that since the indicative feeling (α) and the physical recognition (β) may differ in greater or lesser degree, the logical subject is no longer "tied" to the particularity of the physical indicative feelings. This would seem to be the most obvious place to classify general and universal propositions.¹⁵ For in such cases the logical subjects of the propositions, for instance in the case of the statement of a physical "law", are not all physically felt but rather seem to be hypothetically or imaginatively entertained. This interpretation appears to be borne out by Whitehead's statement that:

...If, in the comparison of an imaginative (propositional) feeling with fact, we merely knew what is and what is not, then we should have no basis for discovering the work of objectification in effect-

¹⁵ Perceptive feelings of the "tied" imaginative type seem not to be viable candidates for this classification for they involve, "a proposition imaginatively arrived at, which concerns the nexus and disagrees with the facts." (PR 412) (emphasis added)

ing omissions from the formal constitutions of things. It is this additional knowledge of the compatibility of what we imagine with what we physically feel, that gives us this information. (PR 419) (emphasis added)

Knowledge of this compatibility would seem to require a principle of verification. And verification, an activity quite distinct from the expression of general or universal propositions, depends upon feelings which are "...(i) perceptive, (ii) authentic, and (iii) direct..." (PR 403)

From the above interpretation that general and universal propositions may be generally classified as "imaginative" types, we should not draw the converse inference by saying that imaginative propositions must be either general or universal ones. It may be the case that however much the indicative feeling and the physical recognition differ, the features of particularity and individuality may be preserved. In the event that this obtains a singular proposition would still result.

An interesting consequence of this interpretation (if it is correct) is that all logico-mathematical statements or statements of a scientific nature that partake of either generality or universality are to be classified as imaginative propositions.¹⁶

Section 5. Propositions and "Qualities"

With Whitehead's rejection of the substance-ontology, it would seem that one is led to ask how he purports to reinterpret the traditional view of primary and secondary qualities. This is a legitimate question

¹⁶Whitehead's detailed discussion of the theorem: "one and one make two" seems to substantiate this interpretation. See (PR 300-303), also (SP 103).

Applying this interpretation to " $E = mc^2$ ", we may have an illustration of Einstein's statement that, "Imagination is more important than knowledge."

because the rejection of the traditional concept of substance means a re-statement of the notion of "qualities inhering in a substance". Without entering upon a detailed discussion of the matter (which would require a volume in itself and which the writer is not prepared to offer), it may be possible to indicate how Whitehead's metaphysical scheme would alter the interpretation.

Following Whitehead's procedure, it may be helpful to contrast his views with those of the pre-Kantian European tradition. The notion of substance dominated much of the thought of Descartes and of Locke. Nor is Hume free from the far-reaching influences of modes of thinking derived from earlier substance-ontologies. An example Whitehead uses will serve to illustrate one side of the contrast.

Locke, writing with a knowledge of Newtonian dynamics, places mass among the primary qualities of bodies. In short he elaborates a theory of primary and secondary qualities in accordance with the state of physical science at the close of the seventeenth century. The primary qualities are the essential qualities of substances whose spatio-temporal relations constitute nature. The orderliness of these relationships constitute the order of nature. The occurrences of nature are in some way apprehended by minds, which are associated with living bodies. Primarily, the mental apprehension is aroused by the occurrences in certain parts of the correlated body, the occurrences in the brain, for instance... But the mind in apprehending also experiences sensations which, properly speaking, are qualities of the mind alone. These sensations are projected by the mind so as to clothe appropriate bodies in external nature. Thus the bodies are perceived as with qualities which in reality do not belong to them, qualities which in fact are purely the offspring of the mind. Thus nature gets credit which should in truth be reserved for ourselves: the rose for its scent; the nightingale for its song; the sun for its radiance. The poets are entirely mistaken. They should address their lyrics to themselves, and should turn them into odes of self-congratulation on the excellency of the human mind. Nature is a dull affair, soundless, scentless, colourless; merely the hurrying of material, endlessly, meaninglessly.

However you disguise it, this is the practical outcome of the characteristic scientific philosophy which closed the seventeenth century.

And yet -- it is quite unbelievable. This conception of the universe is surely framed in terms of high abstractions, and the paradox only arises because we have mistaken our abstractions for concrete realities. (SMW 79-81)

Indeed with Whitehead's theory of propositions, coupled with his frequent warnings of the dangers of falling into the "Fallacy of Misplaced Concreteness", we are presented with a radically differing point of view.

Whitehead's is a realistic epistemology in the sense that perception has a definite link with the world external to the animal body. This 'link' (a propositional feeling) as we have seen, has both objective and subjective aspects and cannot be abstracted from either without being reductionistic. The objective side would be closely identified with the conformal phase of the proposition in so far as it conforms to what objectively is, and the subjective side would be identified with the originative phase of the proposition forming the predicative pattern (possibly incorporating it into a comparative feeling leading to conscious perception). And we remember that in a propositional feeling (where the experiences of qualities will occur) the ground of the originative phase is the conformal phase of the same propositional feeling.

The distinction between objective and subjective aspects of experience is further indicated by the difference between objective and subjective species of eternal objects. The former can only obtain ingression as "...an element in the definiteness of some objectified nexus...which is the datum of a (physical) feeling." (PR 445) It is solely as an agent of objectification and never as an element in subjective form, and..."The solidarity of the world rests upon the incurable objectivity of this species of eternal object." (PR 445-6) Also they are referred to as "the mathematical platonic forms" and as such would be involved in spatial relations. (Ibid.)

Members of the subjective species are primarily elements in the subjective form of feeling. These would function in emotion, pleasures or pains, and valuations. But they also include "sense qualities" as intensities of feelings. The distinction from Locke, however, would be that the intensities are prehended from other entities as intensities of physical energy. (PR 447) The eternal object involved will function both subjectively and relationally (whereas the objective species function only relationally). (PR 445-6)

For example, 'redness' may first be the definiteness of an emotion which is a subjective form in the experience of A; it then becomes an agent whereby A is objectified for B, so that A is objectified in respect to its prehension with this emotion. But A may be only one occasion of a nexus, such that each of its members is objectified for B by a prehension with an analogous subjective form. Then by the operation of the category of transmutation, the nexus is objectified for B as illustrated by the characteristic 'redness'. The nexus will also be illustrated by its mathematical forms which are eternal objects of the objective species. (PR 447)

Two observations are important for the present thesis. One is that in a propositional feeling the "predicative pattern" may involve both kinds of eternal objects or "qualities". The other is that both types in functioning relationally are involved in feelings which are constitutive of the prehending subject. This leads to the theory of relations and its bearing on the importance of propositions.

Section 6. Propositions and The Theory of Relations

In our experiences in the world we must invariably come to the conclusion that in so far as there is diversity, the diverse elements are related. No one will deny this ultimate fact. A problem arises, however, when we attempt to describe how these relations in fact are to be found. The problem of relations can be treated on many levels of complexity but

for our convenience we are here concerned with two-termed relations and, since we are talking about the world and our experiences of it, we are at present interested in actual concrete terms for our relations. We use the term "internal" to refer to a relation which is constitutive of an actual occasion, and the term "external" to refer to a relation which is not internal to a given actual occasion. Given the above there are three formally possible ways in which two actual occasions might be related. We use the following diagram to represent the situation:¹⁷

- (1) $\textcircled{A} \leftrightarrow \textcircled{B}$ external-external or e-e relations
 (2) $\textcircled{A} \rightleftarrows \textcircled{B}$ internal-internal or i-i relations
 (3) $\textcircled{A} \leftarrow \textcircled{B}$ external-internal or e-i relations

It is of paramount importance to understand Whitehead's position with respect to this problem. First it might be noted that the adoption of one or more of these possibilities (usually tacitly) has historical precedent of great import. The philosophies that have adopted the notion of "Substance" whereby it is conceived as being "that which requires nothing in order to be as it is", i.e., as "existing", are forced ultimately to adopt the first of these three types - the e-e relation as holding between the constituent parts of the world. (A) and (B) are then interpreted as substances and as such they individually can be exactly as they are regardless of what happens to everything else in the universe. Wittgenstein's early philosophy is a paradigm example of a philosophy of this kind.

¹⁷ Here the (A) is not meant to indicate any kind of priority over (B) such as temporal priority which is a separate consideration to be dealt with later.

The tradition of absolute idealism has at times claimed the second of these possibilities, the i-i relation, to be a characterization of the ultimate connectedness in the universe. F. H. Bradley and Professor Brand Blanshard are notable exponents of this view. According to this schema, everything in the universe affects everything else in the universe without exception.

Whitehead's position is elaborated in his theory of feelings (including of course, propositional feelings). For Whitehead, feelings are the only actual links between individual existent entities. Physical feelings are essentially of a vector character. They always have direction and determinateness. They are coming from something and going to something. The something from which they come is a perishing actual entity of the past and the something to which they go is a becoming (prehending) actual entity of the present. Whitehead has opted, in his theory of feelings, for the third possibility above - relations of the e-i type. The irreversible temporality of actual things determines that the feeling relation between actual occasions go in one direction only. (PR 363) This means that the present can feel the past, mediately in the case of the distant past -- immediately in the case of the proximate past; and that it cannot feel the present. It might have felt anticipations of what the present is or of what it might have been but this anticipatory feeling would have been of a potentiality only (a conceptual feeling) and not of an actuality (a physical feeling). The future neither feels nor is felt. It is "...merely real, without being actual; whereas the past is a nexus of actualities." (PR 327) The future is "merely real" because it is a "real possibility".

It is especially to be noted here that where actual relations of

this kind are under consideration Whitehead is quite explicit about the ontological status of the relations themselves. "It is to be remembered that just as the relations modify the natures of the relata, so the relata modify the nature of the relation. The relationship is not a universal. It is a concrete fact with the same concreteness as the relata."(AI 201)

The relationship between Whitehead's theory of relations and his theory of propositions is then of central importance. For constitutive relations are not always merely feelings of settled fact in the actual world of the prehending subject. Each fact is embedded in a penumbra of possibilities which, for prehending subjects of relatively complex types, are prehended as predicates of propositions involving the physical feeling of those settled facts as the logical subjects of the propositions. The process of feeling (being constituted by) propositions requires this theory of relations, and not only effects decision but it also results in a lure to further feeling. It is in this role as a lure for feeling that propositions are essentially concerned with contrast - contrast between what is and what might be. In its complex forms of integration, this contrast (as affirmation-negation contrast) results in consciousness. As we have mentioned before, propositions essentially involve valuation, and here it can be seen how the constitutive function of relations in Whitehead's philosophy provides for the actualization of this value. But this function of relations does not exhaust the topic for Whitehead.

There is one situation which Whitehead describes in terms of e-e relations. It is the case of strict contemporaries. "...so far as physical relations are concerned, contemporary events happen in causal independence of each other."(PR 95) Whitehead's emphasis on the word "causal"

is explained by the fact that for him, "A simple physical feeling is an act of causation."(PR 361)

A consequence of Whitehead's definition of contemporaneity is that what one experiences as "immediate" in his actual world is not strictly contemporary with him but lies in his very proximate past. It is illuminated and projected as immediate by perception in the mode of presentational immediacy. Of course the proximate past shares most of the characteristics of the becoming present that is contemporaneous with him anyway so that which is presented in presentational immediacy is for the most part quite correct.

Finally, for Whitehead, where actual occasions are concerned there is never an occurrence of the second type or i-i relation shown above. But when the notion of relatedness is extended to apply to the non-temporal and non-actual eternal objects, the i-i relation does apply. Because of their relational essences, eternal objects are mutually involved with each other. This involvement may be one of compatibility (as with 'redness' and 'roundness') or one of incompatibility (as with 'squareness' and 'roundness'), but nevertheless there is involvement. It is on the strength of his doctrine of relations as it applies to eternal objects and their employment as general and universal terms in systematic thought that Whitehead tells us, "The systemization of knowledge cannot be conducted in watertight compartments. All general truths condition each other; and the limits of their application cannot be adequately defined apart from their correlation by yet wider generalities."(PR 15)

From the above we see Whitehead's doctrine of relations applying to two mutually exclusive ontological realms - the actual and the abstract.

The distinction between the types of relations that can apply in either case is likewise divided into two mutually exclusive kinds; on the one hand e-i and e-e relations apply only to the actual and on the other hand i-i relations apply only to the abstract.

It is doubly important to notice this clear distinction in his philosophy for it is to the confusing of such a distinction that Whitehead attributes much of the confusion in traditional philosophic thought. He gives us a cogent example:

Owing to the disastrous confusion, more especially by Hume, of conceptual feelings with physical feelings, the truism that we can only conceive in terms of universals has been stretched to mean that we can only feel in terms of universals. This is untrue. Our perceptual feelings feel particular existents...(PR 351)

Section 7. Propositions and Judgments

In his treatment of the theory of propositions Whitehead makes a very sharp distinction between propositions (which are always true or false) and judgments (which are correct, incorrect, or suspended). Although one may judge a proposition as "true" the judgment itself is not true; it is correct or incorrect. Whitehead defines 'judgment' as "the decision admitting a proposition into intellectual belief."(PR 285) Since 'intellectual feelings' is Whitehead's name for conscious (comparative) feelings, it follows that judgments are always conscious judgments.(PR 292, 406) Furthermore, Whitehead states that, "the doctrine here laid down is that, in the realization of propositions, judgment is a very rare component, and so is consciousness."(PR 281) The primary significance of propositions is that they serve as lures for feeling. In acting as lures they are elements in 'decision' which, though usually not conscious, effects either aversion or aversion - valuation up or valuation down. The central

point is that judgments imply a higher type of prehensive capacity on the part of their subjects than do propositional feelings generally since propositional feelings do not necessarily imply consciousness; but, "conscious perception is...the most primitive form of judgment." (PR 245)

As mentioned briefly above, there arise two possible cases in the entertainment of a proposition. It is either conformal or non-conformal with the facts (i.e., the actual world of a member of its locus) either true or false. In this connection Whitehead makes the following apparently strange statement: "In the real world it is more important that a proposition be interesting than that it be true." (PR 395-6) This somewhat paradoxical statement is made clear upon examination of what happens when either conformal or non-conformal propositions are admitted into feeling. When a conformal (true) proposition is admitted into feeling there is merely a recognition or taking account of what is. Whitehead calls it the conformation of feeling to fact with some attendant amplification or diminution of that feeling. But when a non-conformal (false) proposition is admitted into feeling there is an introduction of an awareness of the discrepancy between what is and what might be. This contrast takes the form of a comparative feeling between a propositional feeling and a feeling of the logical subjects from which it derives. Propositions are "tales that might be told" about their logical subjects. Here we see the importance of 'contrast' in the world, for a novel entity has emerged. Whitehead calls this awareness the 'affirmation-negation contrast' and he tells us that "the subjective form of the feeling of this contrast is consciousness." (PR 407)

Whenever any feeling (including propositional feelings) is admitted as partially constitutive of its prehending subject, decision has occurred.

Indeterminateness is made determinate. (PR 227) A judgment¹⁸ is a conscious decision that "weakens or strengthens the decision whereby the judged proposition, as a constituent in the lure, is admitted as an efficient element in the concrescence, with the reinforcement of knowledge. A judgment is the critique of a lure for feeling." (PR 294)

Under the topic of judgments there are further divisions. Whitehead writes:

Judgments are divisible into two sorts. These are (i) intuitive judgments and (ii) derivative judgments. In an intuitive judgment the integration of the physical datum with the proposition elicits into feeling the full complex detail of the proposition in its comparison of identity, or diversity, in regard to the complex detail of the physical datum. The intuitive judgment is the consciousness of this complex detailed comparison involving identity and diversity. Such a judgment is in its nature correct. For it is the consciousness of what is.

In the derivative judgment the integration of the physical datum with the proposition elicits into feeling the full complex detail of the proposition, but does not elicit into feeling the comparison of this detail with the complex detail of the physical fact. There is some comparison involving the remainder of the detail. But the subjective form embraces the totality of the proposition, instead of assuming a complex pattern which discriminates between the compared and the un-compared components. In derivative judgments there can be error. (PR 292)

Upon comparing the above with Whitehead's claim that there are two kinds of comparative (conscious) feelings, intuitive judgments and conscious perceptions, we notice that conscious perceptions must be the same as derivative judgments. (PR 406) This interpretation is reinforced by the statement above that derivative judgments (which are conscious) are the only kind of judgment that can admit error. Conscious perception also admits error when it involves perception in the mixed mode of sym-

¹⁸ Although it is not to our purpose to discuss it here, it should be mentioned that Whitehead allows for the important consideration of suspended judgments as well as for those of the "yes" and "no" forms. (PR 412-13, 419)

bolic reference - which is the usual case for conscious perception. Indeed, even though Whitehead draws the distinction between them that he does, some aspects of conscious perception even closely approach the level of sophistication required by intuitive judgment. As he tells us, "A conscious perception is a very simplified type of intuitive judgment; and a direct affirmative intuitive judgment is a very sophisticated case of conscious perception." (PR 417)

In his drawing of the sharp distinction between propositions and judgments, Whitehead says that his theory might be called a 'correspondence theory' of the truth or falsity of propositions and a 'coherence theory' of the correctness or incorrectness of judgments. (PR 291) The proposition may or may not correspond to the facts and a judgment may or may not point to a coherence between the entertainment of a propositions and the feeling of those logical subjects from which it derives.

Section 8. Symbolic Reference

We remember that Whitehead said that, taken in isolation from the other, neither of the two pure modes of perception could lead to error but that error (incorrectness), when it arises, arises in the act of symbolic reference. Then it seems that, unless a judgment can occur without perception in the mixed mode of symbolic reference, i.e., in one of the pure modes of either causal efficacy or presentational immediacy, (which would seem to be ruled out by his statement that, "complete ideal purity of perceptive experience, devoid of any symbolic reference, is in practice unobtainable for either perceptive mode." (S 54)), judgments must be acts included under the heading of symbolic reference. And, conversely, since symbolic reference always involves consciousness, and consciousness always

involves judgment, symbolic reference must always involve judgment.

It seems a curious fact that (so far as the present writer can determine) Whitehead never made an attempt to integrate his theories of propositional-judgmental feelings and symbolic reference so that they might mutually illuminate one another. In fact even as late as Adventures of Ideas he mentions both in the same sentence without further mentioning their relatedness. He says: "The two conspicuous examples of the truth-relation in human experience are afforded by propositions and sense-perception."(pp. 311-12) (emphasis mine) Since, "when human experience is in question, 'perception' almost always means 'perception in the mixed mode of symbolic reference'"(PR 255-6), the fact that Whitehead does not relate these notions seems even more remarkable if one juxtaposes his additional statements that, "...in experience consciousness arises by reason of intellectual feelings, and in proportion to the variety and intensity of such feelings," and that "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."(PR 407)

Perhaps the reason Whitehead omits discussion of a relationship between the two theories might be found in his distinction between the two ways one can analyse an actual occasion of experience - 'genetic division' and 'coordinate division'. "Genetic division is division of the concrescence; coordinate division is division of the concrete."(PR 433) The genetic division of a concrescence is a division into phases within that concrescence. The successive phases do not correspond to actual temporal divisions because the occasion is a quantum of experience and as such is atomic. "Each phase in the genetic process presupposes the

entire quantum, and so does each feeling in each phase."(PR 434) Since propositional feelings, and derivatively judgments, (i.e., comparative feelings involving propositional feelings) are in themselves phases of atomic actual occasions, the analysis of their successive phases of integration (as we have shown in the diagram) would correspond to, or be included under, the heading of genetic division. Further, the type of division we have elaborated in our discussion and analysis of propositions seems not to be division of the coordinate type. For, "...it is only the physical pole of the actual entity which is (coordinately) divisible. The mental pole is incurably one."(PR 436) But the analysis we have engaged in has shown divisions within the conceptual (originative) phases of integration of the propositional feeling. It seems then that the analysis of propositional feelings, as Whitehead treats the problem, follows along lines of genetic rather than of coordinate division.

On the other hand, the fact that Whitehead says that propositions may or may not encounter judgment seems to indicate a possible temporal distinction between the entertainment of a proposition as a lure for feeling and that proposition as partial datum for a judgment. If this is the case then we have here coordinate division rather than genetic division because of Whitehead's claims that:

Physical time makes its appearance in the 'coordinate' analysis of the 'satisfaction'. The actual entity is the enjoyment of a certain quantum of physical time. But the genetic process is not the temporal succession: such a view is exactly what is denied by the epochal theory of time.(PR 434)

As further reason for believing that we are here dealing with a temporal distinction, an example Whitehead uses to illustrate the experience of causal efficacy comes to mind. In the example, a person is in a dark

room when suddenly the bright electric light is turned on causing him to blink. The light's flash is at least partly causally efficacious in its effect on the person's bodily state. Analogously, a person is 'caused' to retract his hand from a pain-inducing object before he is presentationally aware of whether the object is hot or cold. (e.g., the possible confusion between "hot" ice and hot objects.) Here we have examples of coordinate division (because of temporal distinctions) between the efficacious experience and the affirmative judgment that what is experienced in the presentational mode is a faithful presentation of what is really experienced. Further grounds for affirming that there may be temporal (and therefore coordinate) division between propositional feelings and those same feelings as judged is offered by the similarity of Whitehead's statements that: (i) "In an intellectual (judgmental) feeling the datum is the generic contrast between a nexus of actual entities and a proposition with its logical subjects members of the nexus." (PR 407), and (ii) "A coordinate division is ... to be classed as a generic contrast." (PR 437) (emphases added)

The relation between symbolic reference and propositions may be even more directly drawn by reference to coordinate division of the spatial element in respect to quanta, that is in the extensive region which is the basis of the concrescence. This basis provides possible objectifications for the concrescence, and "...the coordinate divisibility of the satisfaction is the satisfaction considered in its relationship to the divisibility of this region." (PR 435)

Whitehead specifically relates propositions to this type of division by regarding them as one kind of component in a generic contrast (a conscious perception). Thus..."the two components of the contrast are,

(i) the parent actual entity, and (ii) the proposition which is the potentiality of that superject having arisen from the physical standpoint of the restricted sub-region."(PR 437) This way of analyzing conscious perception is very similar to the description of perception in the modes of causal efficacy and presentational immediacy and of symbolic reference relating the two with respect to spatial location.

Should the above prove to be tenable points of comparison, it would seem to be necessary to show in more detail how the two pure modes of perception are related to the contrasted elements of judgmental feelings. It is here put forward as a suggestion that causal efficacy be identified with experience of the logical subjects as they are contrasted with their correlative propositional feeling in a judgment. This would be the conformal or physical phase of the comparative feeling which, in the absence of the full comparison, would issue in the unconscious perception encountered when causal efficacy is regnant over presentational immediacy. It is also suggested that perception in the mode of presentational immediacy may be significantly compared to conscious awareness of the propositional feeling (by itself) which is contrasted with the logical subjects under the mixed mode of symbolic reference (in judgment). Parallel to Whitehead's analysis of the genesis of the several feelings involved in judgment we have the following:

The bonds of causal efficacy arise from without us. They disclose the character of the world from which we issue, an inescapable condition round which we shape ourselves. The bonds of presentational immediacy arise from within us, and are subject to intensifications and inhibitions and diversions according as we accept their challenge or reject it.(S 58)

In the comparison drawn above it cannot immediately be supposed that every judgment must be an act of symbolic reference though this may

be the case. Since symbolic reference is usually mentioned by Whitehead as a mode of conscious perception, the tendency on the part of the reader may be not only to leave it to that but even to restrict it to that meaning. However, it seems that Whitehead may not be quick to limit its range of applicability in such a way. As the following passage may serve to indicate, his references to the two modes significantly overlap, if indeed they are not identical with similar references to judgmental (comparative) feelings. For example:

...The respective rôles of the two perceptive modes in experience are aptly exemplified by the fact that all scientific observations such as measurements, determinations of relative spatial position, determinations of sense-data such as colours, sounds tastes, smells, temperature feelings, touch feelings, etc., are made in the mode of presentational immediacy; and that great care is exerted to keep this mode pure, that is to say, devoid of symbolic reference to causal efficacy. In this way accuracy is secured, in the sense that the direct observation is purged of all interpretation. On the other hand all scientific theory is stated in terms referring exclusively to the scheme of relatedness, which, so far as it is observed, involves the percepta in the pure mode of causal efficacy. It thus stands out at once, that what we want to know about, from the point of view either of curiosity or of technology, chiefly resides in those aspects of the world disclosed in causal efficacy: but that what we can distinctly register is chiefly to be found among the percepta in the mode of presentational immediacy. (PR 257)

Certainly the foregoing discussion is not conclusive in its results, but it may well point to a distinction in method which Whitehead considered important enough to warrant leaving his otherwise well-developed theories of judgment and symbolic reference as separate and apparently unrelated as he did.

Section 9. The Problem of Error

From the several brief references to error in the foregoing it may be noticed that there are two major areas where Whitehead treats the notion of error. They are: (i) propositional-judgmental feelings and

(ii) symbolic reference. In respect to the former, our first consideration will be the question as to what constitutes error in such cases. This consideration may be seen as somewhat problematic in that there is some ambiguity in Whitehead's exposition as to whether error may arise simply from propositional feelings or whether judgmental feelings are required as well in order for error to arise. It is a contention of this thesis that judgmental feelings are required in order that error occur. This is contended for several reasons. One reason follows from conjoining our previous interpretation of presentational immediacy, as consisting of the conscious entertainment of propositional feelings devoid of judgment, with Whitehead's statement (previously noted) that "...while the two pure modes are incapable of error, symbolic reference introduces this possibility." (PR 225) It will be remembered that, in our earlier interpretation, symbolic reference was identified as a species of judgmental feelings. Propositions are always either true or false (PR 392), but in themselves are neither correct nor incorrect. "...Its own truth, or its own falsity, is no business of a proposition." (PR 394-5) Error, it seems, then must refer exclusively to incorrectness of judgment. So error must arise either where judgment affirms a false proposition to be true, or where it denies a true proposition its rightful status as true. False propositions do not in themselves introduce error for they may be correctly judged as false. Our experience seems to corroborate this interpretation, for where propositions function in their primary and most significant role, i.e., as lures for feeling, rather than as data for judgments, we do not refer to the entertainment of such propositional feelings as erroneous. For example, in the statements of factually false propositions such as we find in

fairly tales or in the theater we almost never refer to them as being erroneous but rather as entertaining. They are functioning as "lures for feeling".

Our next consideration is of the falsity of propositions. This is of special importance to the present discussion because of Whitehead's statement that the negative judgment is the height of mentality. (PR 245,417) This seems to imply that the affirmative judgment may occur on a lower level of mentality than that required for the negative judgment. And this seems reasonable to suppose for unless a prehending entity had experience of having erroneously affirmed a false proposition, there seems no evident reason to suppose that a judgment of the "no-form" would ever occur in its experience... This is a tenuous point but, if well-founded, would seem to indicate that the very possibility of negative judgments depends upon the previous experience of false propositions. To judge a proposition as false (even though that judgment may be erroneous) implies that the judging subject knows the meaning of falsity. So the judgment of false propositions seems to be a more primitive possible source of error in the world than is the judgment of true propositions. It is for this reason that false propositions are particularly important for the discussion of judgments. There are several ways in which a proposition can be false. Falsity or ambiguity as to truth in propositions arises in one or a combination of the following ways:

(i) There may be transmutation in the derivation of the physical recognition from the indicative feeling or in the derivation of the predicative pattern from the conformal phase. Transmutation may take one of two forms. It may have the effect of allowing the prehending subject to

feel as physical in the datum that which is only conceptual in the datum. (The example we noted - of an indirect authentic perceptive feeling - was the mistaking of feigned anger for real anger.) Transmutation may also have the effect of allowing the subject to perceive a multiplicity as a unity. This happens, for example, upon viewing a yellow page with fine red lines across it from a distance. The page would appear as solid orange. Auditory sensation provides another conspicuous example. Upon hearing the high pipes on an organ we do not perceive any distinction within the eighteen or so thousand cycles per second of the note presently sounded. Transmutation may have fortunate or unfortunate effects in the process of simplification. It is essential to our very complex experiences that transmutation play the role that it does for otherwise we could not accommodate the bewildering complexity of detail in the world around us.

(ii) There may be conceptual valuation - attenuation or diminution of feeling derived from the physical pole. As it is partly constitutive of the predicative pattern, it is possible that error-producing distortion may arise from this category of experience. The discussion of unauthentic perceptive feelings is Whitehead's account of how this occurs. Being "swept off one's feet" by love, may be a very complex example of such possible grounds for error.

(iii) Conceptual reversion, that category of conceptual functioning most responsible for freedom and the creation of novelty, though it is the source of those characteristics of experience which demarcate higher species of life from the lower, is also responsible for much error. "Error is the price we pay for progress." (PR 284) Undoubtedly, the imagination, via imaginative feelings, often goes astray and leads us to believe

to be true that which is in fact fancy. Hume provides us with a most common example when he cites how when one repeatedly tells the same imaginatively exaggerated story he eventually begins to believe it himself.

Returning now to Whitehead's discussion of error in symbolic reference we found that "...while the two pure perceptive modes are incapable of error, symbolic reference introduces this possibility."(PR 255) Whitehead does not give a detailed account of how this error arises in symbolic reference, except to say that error requires a synthesis of experience in the two pure modes. For symbolic reference to be even possible there must be elements of identity between the two pure modes.(PR 255) This would seem to indicate that in order for error to occur, there must be an element of diversity present that is taken for an element of identity, or an element of identity present that is taken for an element of diversity. The question then arises as to where such an element of diversity has its genesis. From the statement above, that the bonds of causal efficacy arise from without us, and the bonds of presentational immediacy arise from within, it would seem to be a safe conjecture to assume that the element of diversity is found in the mode of presentational immediacy. Indeed, if the interpretation put forward in the last section be correct, we find support for the present conjecture. Further, Whitehead's development of propositional feelings then provides a coherent and detailed explanation of how symbolic reference can introduce error into the world.

Probably the most important result of Whitehead's analysis of error in judgmental feelings, and in symbolic reference, would seem to be the remarkable clarity with which he has shown that, "...error arises by reason of operations which lie below consciousness, though they may

emerge into consciousness and lie open for criticism."¹⁹ (PR 415)

That they may be available for reflective criticism which may, in turn, condition future actions, would seem to form the basis for any discussion of responsibility. The implications of this doctrine for the consideration of moral and legal judgments must be considerable but we must forego the invitation it presents.

¹⁹ Although it is these subconscious operations which make error possible, they do not, in themselves, produce error. "...error is the mark of the higher organisms...", and requires symbolic reference (or, if we interpret correctly, judgment). (PR 256)

III

CONCLUSION

Section 1. The Significance of Propositions

As Whitehead points out several times in his later writings, the usual practice of handing the whole subject of propositions over to logicians in order that they may apply their rigid true-false dichotomy, has almost totally eclipsed their more fundamental metaphysical significance. As we have learned, their fundamental and more common (not to mention important) occurrence is as a lure for feeling. And, "...in the realization of propositions, 'judgment' is a very rare component, and so is 'consciousness'." (PR 281) Not only is the actual truth or falsity of a proposition of comparatively infrequent concern to its prehending subject; we have found that false propositions are generally much more significant to it than are the true variety. They provide the very possibility for the 'affirmation-negation contrast' which, in turn, is a requisite for consciousness. Furthermore, false propositions count very heavily in most forms of aesthetic appreciation.²⁰ The importance of the affirmation-negation contrast can hardly be over-estimated, for without it, the ongoingness of the world would be mere conformation to the past and "efficient causation would reign supreme".

Because of the central position afforded the ontological principle

²⁰ The reader will find an excellent discussion of the relevance of all types of propositions for aesthetic appreciation in Donald W. Sherburne's A Whiteheadian Aesthetic.

(which states that actual entities are the only reasons and the only places in the world), the whole set of problems posed for us in epistemology are seen as essentially ontological in nature. This means that propositions get their significance from their ontological status. (PR 223)

The question of truth or falsity of propositions must always presuppose the notions of relatedness and togetherness. We must answer the question: How are propositions related to or together with the rest of the world such that the facts make them either true or false? For Whitehead,

...(it) is a togetherness of the component elements in the individual experience. This 'togetherness' has that special peculiar meaning of 'togetherness in experience'. It is a togetherness of its own kind, explicable by reference to nothing else.

Furthermore,

The consideration of experiential togetherness raises the final metaphysical question: whether there is any other meaning of 'togetherness'. The denial of any alternative meaning, that is to say, of any meaning not abstracted from the experiential meaning, is the 'subjectivist' doctrine. This reformed version of the subjectivist doctrine is the doctrine of the philosophy of organism.

The contrary doctrine, that there is a 'togetherness' not derivable from experiential togetherness, leads to the disjunction of the components of subjective experience from the community of the external world. This disjunction creates the insurmountable difficulty for epistemology. For intuitive judgment is concerned with a togetherness in experience, and there is no bridge between togetherness in experience, and togetherness of the non-experiential sort. (PR 288-9)

Indeed, Whitehead answers this "final metaphysical question" by his adoption of the "reformed version" of the subjectivist principle and by his development of a metaphysics which is both consistent with and an exemplification of this principle.²¹ His theory of propositions is the necessary outcome of his attempt to solve the problem of the truth and

²¹ See part II, Chapter VII of Process and Reality, especially pp. 239 and 252 for Whitehead's treatment of the "reformed subjectivist principle!"

falsity of propositions consistently within the principles which he considers a philosophy that is adequate to our total experience is forced to accept. With the combined force of the ontological principle and the subjectivist principle it is clear why Whitehead says that "...apart from the experiences of subjects there is nothing, nothing, nothing, bare nothingness."(PR 254)

The implications of this doctrine are far-reaching and cannot be fully developed in the present work. However, it is possible to indicate briefly two important results of Whitehead's thought which, if taken with the seriousness they deserve, would be of considerable importance for current philosophy and the social sciences.

Aesthetic Order and Logical Order

In the philosophy of organism, the aesthetic order is more fundamental to experience than is the logical order. However, much current philosophy seems to be primarily concerned with logical order and only derivatively with aesthetic order. In fact aesthetic considerations are all too often relegated to the dubious position of being solely the product of man's conceptual functioning. And because of an implicit denial of the reformed subjectivist principle, aesthetic "order" is then seen as merely subjective and hence not having the objective import promised by the logical order. Few people seem to want to deny that "Logic pervades the world", but curiously, many seem to want to deny that, aesthetic order also pervades the world.

In the philosophy of organism, the subjective-objective dichotomy (as it is stated above), which seems to be the center-post of the view which holds aesthetic order to be merely subjective, is denied. The

distinction is one of reason and requires high abstraction. It does not obtain in fact. One never has knowledge or experience of any kind that is wholly confined to either side of such a dichotomy.

Also, Whitehead's philosophy clearly indicates that in the order of experiential awareness, aesthetic order holds primacy over logical order. The former is present in all experience, but the latter only gains prominence in the highly integrated stages of intellectual feelings. It is true that both types are required for all experience but as regards their occurrence in subjective immediacy, aesthetic order is by far the more fundamental type.

The Fact-Value Dichotomy

Closely related to the above is Whitehead's denial of the current notion that there can be a legitimate dichotomy between fact and value. The view is commonly held among social scientists that such a dichotomy has actual ontological significance, that is, that facts are only facts and that valuation is somehow superimposed on the facts, is external to them, and does not change the facts themselves. Further, it is held that facts are essentially a-valuational in nature, that is, that they are neutral - neither good nor bad in themselves.

From these considerations and from the implicit metaphysics underlying them, it is then affirmed that the facts are objectively there and devoid of subjectivity, whereas valuation is seen as a purely subjective operation. In addition, the term "subjective", when applied to a judgment, usually carries with it a deprecative connotation; the reason being perhaps because the possibility of error arises in subjectivity. However, in trying to avoid the possibility of error, which does seem to be of subjective

origin, the "scientist" seems to want to exclude all subjectively origina-
 tive functions in such fashion as to imply that the ideal scientific re-
 searcher would be a completely passive collection point for "objective"
 data.

From our examination of his theory of propositions it is perhaps
 somewhat evident to the reader how Whitehead would answer to the affirma-
 tion of such a fact-value dichotomy. Nevertheless, it may be helpful to
 an understanding of Whitehead's position with respect to "ordinary affairs
 of the world" to emphasize how his philosophy relates to this kind of view.

The notion of a "fact" seems to be at issue here. For the behav-
 ioristically inclined social scientist, who would insist that scientific
 evidence be empirically verifiable, the ultimate appeal in an ideological
 conflict tends to be to the "facts". As noted above, these "facts" are
 all too often seen as neutral in themselves so far as valuation is con-
 cerned. And it is frequently considered necessary to the maintenance of
 "true" scientific method to approach these "neutral facts" in such a way
 as not to contaminate their "objectivity" by the introduction of any per-
 sonal evaluation. The more sophisticated behaviorist may admit that ideal
 purity in this pursuit is probably in practice unattainable but nonetheless
 such is held up as his theoretic ideal. The fact that this ideal may be
 unattainable does not weaken his hold upon it, it rather serves to convince
 him of his high (and therefore, certainly worthy) aims.

Let us now examine what Whitehead and the behaviorist each mean
 by "facts". Taking an example from recent world history, we may consider
 the current Viet Nam War - in particular, the controversial bombing of
 the northern part of that country. Admittedly there are facts to be con-
 tended with in this case but how those facts are viewed by some "scientific"

mentalities on the one hand, and by an adherent of the philosophy of organism on the other, yields quite different results. The "scientific" view is quite frequently to be encountered via our news media where accuracy of statement is highly valued. We find such facts expressed as the "body-count" (for both sides), the targets of recent bombing raids, some expert statement of the ideological elements involved in the conflict, etc. These and many more of a similar nature are the "facts" to which one must appeal in order to make a subsequent (and independent) evaluation of the situation in question. Whitehead's theory of propositions, with its accompanying view of language, (mentioned in the early part of this paper) would indicate the following sharply divergent point of view: A fact is experienced, for Whitehead, as a correctly judged proposition. The proposition may be direct or indirect so long as it is authentic (we refer to the diagrams). And it may be a conscious perception or an instance of the more complex intuitive judgment (which is also conscious). But the central point to be made here is that Whitehead's philosophy is in clear disagreement with the view that such facts can be adequately expressed in language in the way the social scientist is prone to assume when he says, "Let us consider the facts". For Whitehead, the kind of fact cited via language and our news media is acceptable as factual in that it certainly has factual content. But it is a simplification of, and for that reason, a distortion of, the living, organic state of affairs which qualifies it, and which, in turn, is qualified by it. Such so-called "neutral facts" are high abstractions from concrete affairs. Whitehead would insist on changing the scientist's appeal, "Let us consider the facts" to "Let us consider some of the facts". The living horror of an actual

bombing-scene is effectively bracketed out. What Whitehead's theory of propositions indicates is that in the attempt to state the "facts" objectively in language what happens is that the efficacy of the factual referent of the statement is left behind in the concrete state of affairs. This accounts for the apparent neutrality of such stated facts. But just because no particular efficacy is indicated in the language as following from the specified aspects of the concrete state of affairs, we are not then validly to assume that none will follow from it. Indeed, for Whitehead, every fact is an efficacious fact. This, as construed in his complete metaphysical scheme, is a direct denial of the asserted existence of "neutral facts". For, in the first place for Whitehead, every fact is about an actual (or once actual) logical subject which, because of the ontological principle, is (or was) an actual entity or nexus of actual entities. This status of being actual as applied to logical subjects involves valuation. Whitehead writes:

...Each actuality is essentially bipolar, physical and mental, and the physical inheritance is eventually accompanied by a conceptual reaction partly conformed to, and partly introductory of, a novel contrast, but always introducing emphasis, valuation, and purpose. (PR 165)

Furthermore, the efficacy of every fact involves the further fact that it effect something. Again, because of the ontological principle, that something is an actual entity or nexus of actual entities which will always involve valuation.

The theoretic ideal of the scientist who is interested in obtaining statements of objectively neutral facts, breaks down even further upon the realization that the particular catalog of "facts" at his disposal has been selected from the infinite welter of such aspects as might

have been so selected from the concrete situation. This in itself indicates an appeal to an evaluative criterion by which certain aspects of the situation are seen as "the facts". But even further than this, even among those facts so selected, it is invariably presupposed that some are more important than others, i.e., that some make more difference than others. This is an implicit affirmation of the efficacy of facts.

This discussion of Whitehead's repudiation of the notion of "neutral facts" requires his whole metaphysical view for its support. And this repudiation must be seen as a larger, more encompassing, repudiation of the doctrine of 'vacuous actuality'. "The term 'vacuous actuality' here means the notion of a res vera devoid of subjective immediacy. This repudiation is fundamental for the organic philosophy..."(PR 43) For, as we have seen, his theory of propositions, which denies the doctrine of neutral facts, and his affirmation of the subjectivist and ontological principles, which together deny the doctrine of vacuous actuality, mutually require one another.

An additional and very important point to consider is that Whitehead's theory of propositions, though it admits of finite truths, must also be seen in a holistic light, (and these are compatible notions); for,

The point is that every proposition refers to a universe exhibiting some general systematic metaphysical character. Apart from this background, the separate entities which go to form the proposition, and the proposition as a whole, are without determinate character. Nothing has been defined, because every definite entity requires a systematic universe to supply its requisite status. Thus every proposition proposing a fact must, in its complete analysis, propose the general character of the universe required for that fact. There are no self-contained facts, floating in non-entity. (PR 17)

Section 2. A General Qualification

The metaphysical grounds which at once point to and give reason for Whitehead's general mistrust of language as being adequate to the expression of a proposition have now to be stated. It remains to inquire how this mistrust, if well-founded, should affect our consideration of his general theory. This question seems to be a legitimate one since the theory of propositions, as well as our discussion of it, are then qualified by the limitations of the language in which they are expressed.

The radical nature of the qualification we are now considering is perhaps best expressed by Whitehead himself. It is indicated in an essay titled "Immortality" which is the text of his last public lecture - delivered on April 22, 1941 at The Harvard Divinity School. These were his last public words to us.

...There is not a sentence, or a word, with a meaning which is independent of the circumstances under which it is uttered. The essence of unscholarly thought consists in a neglect of this truth. Also it is equally the essence of common sense to neglect these differences of background when they are irrelevant to the immediate purpose. My point is that we cannot rely upon any adequate explicit analysis.

The conclusion is that logic, conceived as an adequate analysis of the advance of thought, is a fake. It is a superb instrument, but it requires a background of common sense.

...

...the final outlook of philosophic thought cannot be based upon the exact statements which form the basis of special sciences. The exactness is a fake.

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