If civilization is to survive, the expansion of understanding is a prime necessity.

(MT 63)

If, however, historians are asked what this understanding entails, disagreement ensues. Understanding seems to fall into either one of two broad categories. It may mean either an interpretation of selected segments of the past by the ordering of relevant detail or a panoramic interpretation of the whole of mankind's past. I shall label the former scientific history and the latter universal history. If a historian accepts either of these as the nature of the historical enterprise, his attitude toward the other is usually determined. The scientific historian is apt to contend, on the basis of methodological principles, that universal history is not a legitimate study of the past. The universal historian, on the other hand, may reject the limitations set upon the historical enterprise by interest in minutiae and the specialization which results.

Contrary to these contentions, I shall maintain in this essay that the methods of these two types of history are not distinct. I shall justify the difference between them by arguing that each type of study is the consequence of the function of either practical or speculative Reason. Thus I shall endeavor to show that both species of history are legitimate intellectual enterprises essential to a progressive understanding of the past. These arguments will be set within the framework of Whitehead's cosmology and will furnish an ontological basis for both categories of history.
Studies of the past, like any intellectual endeavor, involve the selecting, ordering and interpreting of the material under examination. The controversy between the scientific and universal historian is waged over the legitimacy of the latter’s principles of selecting and interpreting the data of the past. The scientific historian emphasizes the strict presentation of the facts. His concern, he may argue, is with the uniqueness of past occurrences and not with those characteristics held in common with other occurrences. From the point of view of the scientific historian, the works of the universal historian violate the principle of uniqueness. The sweeping generalizations which serve as the basis for the interpretations of the universal historian stress the common characteristics of past occurrences and not their uniqueness. I shall contend, in disagreement with the scientific historian, that his methods and those of the universal historian do not differ in kind but only in degree of generality and abstraction. I shall support this position by arguing in this section of the essay first that any occurrence is at the same time unique and similar to other occurrences and second that relations between occurrences are designated by common characteristics determined by certain methodological factors delineating the form and content of a narrative. Whitehead’s analysis of the actual occasion will serve as the ontological justification of the first contention.

The historian, whether scientific or universal, believes that his account of the past is about what actually happened. What actually happened, according to Whitehead, is the actual world built up of actual occasions (PR II3). It is from actual occasions that “whatever things there are in any sense of ‘existence,’ are derived by abstraction” (PR II3). The actual occasion refers to the extensiveness of an actual entity (PR II9). This spatio-temporal extensiveness of an actual occasion has three characters, e.g., it is separative, prehensive and modal (SMW 94). The nature of these aspects of the actual occasion determine its uniqueness and its relations to other actual occasions. The separative and modal characters desig-
nate its uniqueness; theprehensivene character, its relatedness.

The spatio-temporal extension of an occasion is separate
from other occasions. This separateness of the occasion is
definitely determined by its spatial or temporal modality.
Spatial modality designates the sense in which an occasion is
at this place and no other. Temporal modality is the en­
durance of an occasion during a certain period and through
no other (SMW 94). The individuality of an occasion resides
in its separative and modal characteristics. One could argue that
an occasion has a unique set ofprehensions; i.e., no two
occasions are related to the same collection of occasions, nor
if they were related to the same collection, would the relations
be the same. This unique character of an occasion's pre­
hensions, however, depends upon its separative and modal
aspects, i.e., an occasion has a certain set ofprehended oc­
casions because of its peculiar spatio-temporal extensiveness.

The unique character of an actual occasion is not a sufficient
basis for a history. A history is not a series of occasions chrono­
logically listed but a collection of selected occasions ordered
and interpreted according to a particular point of view. It is
theprehensivene character of an actual occasion or its spatio­
temporal togetherness with other occasions which ontologi­
cally justifies the relation of occasion to occasion in a history.
"'Together' is a generic term covering the various special
ways in which various sorts of entities are 'together' in any
one actual occasion" (PR 32). This togetherness is a process
of unification whereby each occasion is something from the
standpoint of every other and also, from the standpoint of
every other, is something in relation to it (SMW 101-102).
The process of unification is an uncognitive apprehension,
i.e., an apprehension which may or may not be cognitive
(SMW 101). It is a process consisting of three factors: the
"subject" prehending, the "datum" prehended and the "sub­
jective form" which is how the subject prehends the datum
(PR 35). A rock may be the subject of a prehension, a drip of
water, the datum, and the conditioning of the surface of the
rock by the water, the effect of the datum on the subject.
This is an example of a simple physical prehension or an act
of causation (PR 361). My prehension of the red patch on my
desk as a book is a more complex prehension involving the integration of a physical and conceptual feeling (prehension). A conceptual feeling is a feeling whose datum is an eternal object (PR 367). In the latter case "book" is the conceptual feeling integrated with the sensation "red patch." All awareness involves the synthesis of physical and conceptual prehensions (PR 372). Thus the subject-matter of history is grasped through the synthesis of physical and conceptual prehensions.

Although actual occasions ontologically justify the subject-matter of history, what the historian grasps are prehended aspects of actual occasions. "A prehensive occasion is the most concrete finite entity, conceived as what it is in itself and for itself and not as from its aspect in the essence of another such occasion" (SMW 104-105). A prehended occasion is grasped as a propositional feeling. A propositional prehension is an integrated synthesis of a physical feeling with a conceptual feeling (PR 393). The primitive level of propositional prehensions identifies prehended occasions spatially or temporally. The historian's account is often of occasions he has not himself experienced. Hence the physical aspect of the propositional prehension is either memory (if the occasion was witnessed), evidence or traces of the past in the present. From these sources the historian infers that occasion $y$ occurred at either time $t$ or place $x$. (a) "On the 16th Napoleon left Paris" is an example of such an identification.1 Any historian begins his selection from an indefinite number of such propositions to be termed hereafter "historical facts."

The confirmation of the simple historical fact is a complicated method whereby evidence or traces of the past in the present are analyzed and authenticated. This essay is not concerned with the methods of confirming historical facts. The dimension of historical fact, i.e., the level of simple facts which have been confirmed, is mentioned because it is the starting point of any study of the past and is that aspect of historical knowledge agreed upon by most historians. If there is disagreement as to the credibility of a historical fact, it is

a consequence of lack of evidence or of previous knowledge. Disagreement would be justified in such a case by the inadequate grounds for confirming the fact.

From the primitive level of historical fact, the historian may formulate one or more types of complex historical facts of a higher level of generality and abstraction. The general proposition so formulated ultimately rests upon the particular primitive historical facts which are its justification. One such type of fact refers to an aggregate of prehended occasions which may have the approximate time, place or type of prehended occasion in common. “Finally Shakespeare and Cervantes died on the same day, April 23, 1616” is an example of that type of complex historical fact referring to two or more primitive facts identifying occasions (SMW 58). The occasions of the deaths of Shakespeare and Cervantes are integrated in a complex fact by Whitehead in his effort to show the coincidences which marked the literary annals of the seventeenth century, that century of genius which furnished the ideas upon which the past two or more centuries have been living (SMW 57–58).

There is a more complex historical fact of a higher level of generality and abstraction which is illustrated by the following quotation from Adventures of Ideas: (c) “Throughout the Hellenic and Hellenistic Roman civilizations – those civilizations which we term ‘classical’ – it was universally assumed that a large slave population was required to perform services which were unworthy to engage the activities of a fully civilized man” (AI 14). The spatio-temporal slab referred to in this case is much more comprehensive than that of either (a) or (b). In the case of (c) “universally assumed” is relevant to the idea of slavery in the political writings of the Greeks and Romans. Before (c) was formulated and given significance in a history, the foundation for the abstraction of the concept of slavery from the political writings of Romans and Greeks had to be determined by fundamental principles of a high degree of abstraction and generality. Whitehead has stated that the intellectual agencies involved in the modification of epochs are the proper subject of an adventure of ideas (AI 19). These intellectual agencies may be either general ideas or highly
specialized notions. The concept of slavery in the political writings of the Greeks and Romans is an example of such a general notion. How this concept was modified and replaced by the concept of freedom can be interpreted as Whitehead's attempt to apply to a particular period of the past his cosmological theory of progress which rests upon the modification or replacement of ideas which form the cosmological outlook of an epoch by other ideas.

The primitive level of historical fact conceives of the pre­
hended occasion "in itself and for itself," e.g., in its uniqueness. Complex historical facts are unique in the sense that they refer to certain primitive historical facts and to no others. Yet the particular primitive facts related in a complex fact are integrated by their common characteristics. Complex historical facts of varying degrees of generality and abstraction may occur in scientific or universal history. The more general proposition at the cosmological level, however, is more apt to occur in a universal history. The type of complex fact and the selected primitive facts to be so integrated are determined by basic principles of interpretation.

It is in the ordering and interpreting of selected simple or complex facts that rank disagreement among historians arises. The structure of any ordered interpretation of the past depends upon the "togetherness" of actual occasions. The relation of fact to fact is justified by common characteristics. The particular characteristics of selected facts to be signalled out is designated by methodological factors basic to any history. Certain aspects of a historian's spatio-temporal perspective specify the general frame within which a scientific or universal history is constructed. These methodological factors are (1) the historian's definition of the subject-matter of history, (2) the extension of our knowledge and beliefs about man's social behavior as we relate more of the unknown to the known and (3) the alteration of the historian's views of what is "significant" in the past as his understanding of the consequences of what has happened changes with what comes to pass.¹

(1) What the historian determines as the subject-matter of history will limit the dimension of historical fact relevant to his studies of the past. This restriction may be set by the dictum "how it actually happened" and within the confines of this dictum one may designate certain aspects of the dimension of historical fact as relevant to studies of the past, e.g., one may confine history to human affairs and within this cadre, to past politics. Or one may designate the whole of the known past as the periphery of one's account and within this periphery specify man's spiritual affairs as the subject-matter of history. In each case the level of generality and abstraction will differ in degree according to the spatio-temporal expansiveness to be covered. If the strict presentation of the facts is one of the defining characteristics of history, then the historian's narrative is confined to description and to low level explanation. If a panoramic vision of the past is the historian's intention, then his account will be a correlation of simple or complex facts of varying degrees of generality and abstraction.

(2) Methodologically speaking, the available primitive facts and the possible relations between them depend upon the spatio-temporal location of the historian. As man relates more of the unknown to the known, the dimension of historical fact may be extended or systematic knowledge of types of behavior may be enlarged. Discoveries of hitherto unknown evidence may alter the dimension of historical fact. Archeological findings may furnish the evidence or traces of the past which lead to the filling in of gaps or to the modification of confirmed facts. In addition man's increasing knowledge about himself and his environment enables him to give more than one explanation of an occasion. Thus, he may render a biological, psychological, physiological, economic or other explanation of a human relation. Systematic areas of intellectual endeavor are not static activities. They are subject to modification.

(3) The historian's views of what is significant change with

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his understanding of the consequences of what has happened in the light of what comes to pass. The dimension of historical fact is not a closed context. It is continuously being added to as occasions become actualized. As the dimension of historical fact changes, so does the historian’s own dimension of historical fact become extended as his present experiences move into the past. Hence his views affecting his methods of selecting, ordering and interpreting may change as his understanding and experience evolve.

In addition to these factors, the historian employs other methodological procedures which determine more specifically the form and content of his study. These latter factors are (a) the context of a study of the past, (b) the perspective of the context, (c) the point of view of the perspective and (d) the specific problem under consideration.

(a) The spatio-temporal segment of the dimension of historical fact the historian chooses to relate is the context of his narrative. For example, the context may be 18th century France or France from its inception up to the present. It would be impossible for any historian to construct a study of the past which would include all of the extant historical facts in any context. The other factors in this group specify the facts to be selected and interpreted within the confines of what is designated as the subject-matter of history.

(b) Within the context, the historian selects a perspective for his account of the past. A historian whose context is 18th century France may choose any of the following as his perspective: ideas, architecture, the French Revolution, Napoleon or others. The perspective is the sub-ordering of facts within the context designating a unifying factor of the account, As the spatio-temporal range of the context increases the number of possible perspectives also increases.

(c) The perspective selected may be interpreted from one of several points of view. Within the perspective the point of view determines the relationships between facts. The specific facts and the mode of relationship between them is designated by either principles, generalizations, laws, normative statements or other factors. It is the point of view which sets the conditions for an occasion, thus determining the specific facts
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from the perspective or other related relevant sub-orderings of facts to be interpreted.

(d) The context, the perspective and the point of view form the structure within which the historian attempts to resolve a specific problem. The problem may take the form of the tracing of a tendency, the causes of a war or revolution, and so on. The problem refers to what it is the historian is trying to show or resolve by certain relationships between facts.

Many different orderings and interpretations of historical facts are possible. The comprehensiveness of the context increases the number of perspectives possible. Within a single narrative, facts from several different perspectives may be relevant to the account. It is the task of the historian to weave a consistent and credible narrative of the historical facts relevant to the problem under consideration. As the spatio-temporal compass of the context increases, these possible relationships increase. The larger the segment, the more general and abstract is the account.

Whether a history falls under the scientific or universal category, the methods employed in relating facts to other facts are primarily the same. As I have pointed out, the level of generality and abstraction differs. At either level the historian is attempting to establish relationships between historical facts which will extend our understanding of the past. Understanding is achieved by increasing the number of justified connections between facts. The scientific historian is not willing to accept the pattern or scheme whereby the universal historian justifies his relations because of its generality and abstraction, yet he is willing to accept some connections and to increase thereby his degree of penetration. Since he is not willing to offer a methodological justification for universal history, I shall seek an ontological justification in the distinction Whitehead has made between the practical and speculative Reason and the modes of understanding which evolve.

II

According to Whitehead, understanding has two modes of
advance, e.g., “the gathering of detail within assigned pattern and the discovery of novel pattern with its emphasis on novel detail” (MT 80). These two modes of understanding are a consequence of the function of the speculative and practical Reason. These functions of Reason are essentially distinguished by the purposes governing its operation in each case. The operations of practical Reason, according to Whitehead, are motivated by interests external to itself. Speculative Reason serves only itself. This distinction in motivation determines the intellectual activity which proceeds from the operation of these two aspects of Reason. Practical Reason is responsible for “the piecemeal discovery and clarification of methodologies,” speculative Reason “seeks with disinterested curiosity an understanding of the world” (FR 29). Thus, practical Reason nurtures the methodologies of every special area of intellectual activity, while speculative Reason fosters cosmology.

Practical Reason is bound by the limits of a successful method. These limits lead to Obscurantism, that state of inertial resistance arising when recent habits of speculation interfere with a fixed method (FR 34). In this respect, practical Reason is opposed to speculative Reason. Speculative Reason is continuously engaged in attempts to transcend any particular method. Its attempts at transcendence take either one of two forms: the transcendence achieved within the boundaries of a fixed method or the transcendence achieved through the construction of a most general interpretative scheme of the present stage of the universe. In the former activity, speculative Reason is operating in alliance with practical Reason and is endeavoring “to enlarge and recast the categorical ideas of a particular methodology within the limits of that topic” (FR 68). In the latter, speculative Reason is engaged in the construction of cosmologies. It is practical Reason which gathers the detail within an assigned pattern and in so doing advances understanding. Speculative Reason, on the other hand, discovers novel patterns emphasizing novel detail.

Neither speculative nor practical Reason can conduct its operations apart from the other. Speculative Reason discovers
the categorial schemes of each specific method. It also enlarges and recasts these ideas when the need arises. In its most comprehensive function, speculative Reason is engaged in the discovery of a most general interpretative scheme which is presupposed by specific methodologies at specific times. Speculative Reason is protected from illegal flights of fancy by practical Reason. The novel concept must accord with a specific methodology. The discovery of a novel concept leads to disagreement between a cosmological outlook, a special science and the novel concept. Practical Reason and speculative Reason function together in the modification of each of these endeavors. Practical Reason collects and examines the relevant evidence and speculative Reason formulates the modifications of all three so that accord results (FR 70).

Like all efforts of finite intelligence, cosmologies fail to achieve the generality and clarity at which they aim. Cosmology is a formulation of the most general interpretative scheme of the present stage of the universe. It generalizes beyond any special science, and thus provides the interpretative system which expresses their interconnection. "Cosmology, since it is the outcome of the highest generality of speculation, is the critic of all speculation inferior to itself in generality" (FR 69).

How do scientific and universal history fit into Whitehead's analysis of Reason? The scientific historian is engaged in the elaboration of detail within fixed methods. The scientific historian constructs his narratives within the confines of specific methods. He orders and interprets facts within accepted perspectives and relates them according to generalizations and laws which form the structure of special methods. In the case of the universal historian the form of his study of the past is not confined to that of specific methods. He is attempting to construct a scheme which will relate the various specific methods to each other. In so doing, he engages in the discovery of novel concepts and patterns for interpreting the past. If the universal historian endeavors to construct a most general interpretative scheme, then, according to Whitehead's analysis, his universal history is a cosmology. His conceptual scheme is cosmological in gener-
ality and purpose, but his universal history is not simply the formulation of such a scheme but is an endeavor to interpret the past according to the dictates of the scheme. Thus the universal historian not only invents a novel cosmological scheme but also attempts to verify his pattern by his study of the past. If Whitehead's criterion of an adequate cosmology is applied to universal histories, then one discovers that many of the schemes recast and enlarge one special method and use it as the basis for the most general interpretative scheme. The Marxian historian reduces human activity to the economic level; Toynbee gives precedence to religious concepts and principles. Cries of unwarranted relations are based upon this failure of the universal historian to find a most general scheme transcending a specific method.

The universal historian has attempted to come to grips with the general scheme presupposed by all special methods. His scheme will sooner or later become inadequate, but in the process of his construction of a study of the past, he has discovered relations and increased the depth of understanding. His novel conceptual scheme is kept within bounds by the attempt to interpret the past according to the scheme. Thus practical Reason is performing its function in the construction of a universal history. Universal histories, on the other hand, might lead to the modification of special methods. The distinction between the two categories of history is justified by Whitehead's analysis of the practical and speculative Reason. The operations of both are essential to the historical enterprise and to the advance of human understanding.