

Whitehead's Harvard Lectures, 1926-27

COMPILED BY GEORGE BOSWORTH BURCH

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EDITOR'S INTRODUCTION

A large set of class notes, papers, clippings, etc., compiled by the late George Bosworth Burch, for many years Fletcher Professor of Philosophy at Tufts University, has been donated to the Harvard University Archives by his widow, Betty Brand Burch. The set consists of twenty-nine bound books, organized into forty-eight volumes. Each volume contains notes and materials relating to one-half an academic year. Volumes 10 and 12 are not included, and their omission is noted by Professor Burch in volume 11.

These PERMANENT NOTES, as Professor Burch has entitled them, cover a period extending from 1919 to 1943 and consist, mostly, of class notes, reading notes, and papers composed by Burch while he was an undergraduate student, graduate student, and teaching assistant at Harvard University. Volumes 15 and 16 contain notes of courses Burch took when he was in his fourth year of graduate studies, during the academic year of 1926-27. These include lecture notes for Whitehead's "Philosophy of Science: General Metaphysical Problems," (Philosophy 3b), which met Tuesdays, Thursdays, and Saturdays at 12:00 noon (1:332).

Except for the last item, none of the notes given below have specific dates attached to them. The "Lectures by Professor Whitehead" (the only item from volume 16) is noted by Professor Burch as pertaining to lectures given February 26 and March 1.

The section in volume 15 given over to Whitehead's course also include lectures by William Ernest Hocking, Charles Hartshorne, and Raphael Demos. Hocking's lectures on Whitehead probably derive from his course "Metaphysics" (Philosophy 9), which Burch also took that year. At the end of the section, in volume 15, devoted to Hocking's course is found an original copy of the final examination, bearing the date, "Mid-year, 1927." One of the questions on that examination reads:

What, according to Berkeley and to Whitehead, are the consequences of denying the "bifurcation of nature"? Discuss the intuitions which lead Whitehead to his conclusions.

The notes of his lectures bear directly upon this question. One passage is particularly insightful, linking Whitehead's theory of eternal objects with the problem of evolutionary emergences:

3. The processes of nature are regarded by the mechanistic view as being a relation of cause and effect, which is a relation of equiv-

alence, energy and momentum remaining constant; causality implies quantitative equivalence. But this is not the whole truth. A distinguishing feature of causality is that the effect is different from the cause. This fact led Hume to criticise Newtonian causality; he said that causality is purely empirical. Kant and Whitehead are impressed by Hume's criticism. Whitehead is impressed by the fact that the effect exhibits new things—especially in the domain of secondary qualities. If copper is dropped into sulfuric acid, the mass and energy remain the same, but there is more color. The theory of emergent evolution says that such new properties simply emerge. But Whitehead asks: From what do they emerge? If from nothing, then the word, "emergent," simply covers our ignorance, describes without explaining. Whitehead says emergence must be from something. The new qualities emerge from the world of essences.

There is a world of essence (possibles, eternal entities). It contains all that can be called universals, e.g., propositions. In this world there is a plenum of possibles. Every actual existence has previously been possible, while many possibles never become actual. This is Aristotelianism: possibility is not nothing; possibles, while not existing, do subsist. When something new appears, e.g., the blue of copper sulphate, then a possible has become actual. Realization is a real process in the world. Realization is limited; all realizations have value. Limitation itself is a criterion of value; everything valuable is limited. Everything which exists in the world has value; every single event, in itself, is valuable. Nothing would exist were it not for the value of its existence. This realization of value is in the same space-time world with the qualityless mechanical primary qualities. Realization is a process existing in and through the causal process. It is an exhibition of an underlying eternal energy. Realization must be considered as a deed of something; it must be referred to something which is acting.

The lecture by R. Demos on "Contingency" has in it nothing bearing on process thought. Hartshorne's lectures present an introductory expository sketch of Peirce's thought, concluding with this comparison:

Points of similarity between PEIRCE AND WHITEHEAD: 1. The method of rational empiricism; no explanation of the concrete by the abstract. 2. Real generality as real continuity. 3. Solidarity of the world. 4. Realism based on the social nature of substance. 5. Time taken seriously; the future indeterminate. 6. Feeling as the stuff of things. 7. Final causes or ideals as supreme forces. 8. Feelings having degrees of vividness. 9. No simple location. 10. Evolution of all facts (e.g., laws) not inherent in pure generalities. 11. Physical objects involving feeling; values objective in nature. 12. Thought getting its content from feeling and sensation.

I wish to thank Mr. Harley P. Holden, Curator of the Harvard University Archives, Mr. Clark A. Elliott, Assistant Curator, and Mrs. Betty B. Burch for their assistance and for granting permission to edit this portion of Professor Burch's PERMANENT NOTES for publication.

LECTURES BY PROFESSOR WHITEHEAD: INTRODUCTION

There is no philosophy of science; we are concerned with those parts of philosophy which are suggested by science. In three epochs science has suggested philosophical ideas: the Greek period, the seventeenth century, and the twentieth century.

Descartes, Leibniz, Locke, and Kant assume that the underlying reality of the world is a permanent substance which has adventures.

Our scientific habits are set by ignoring the inexplicable. In every intellectual epoch the adequacy of the evidence for the prevailing beliefs seems overwhelming. We must not ignore the inexplicable; we should imitate our ancestors who beat gongs when the moon was eclipsed. But mere notice of unusual phenomena is not sufficient; we must give them rational attention. Science and philosophy are united in a common goal, explanation. (Dewey says the goal is action.) Action and use are a test of explanation, and explanation is the basis of action, but explanation is an end in itself and is the chief end of science and philosophy. Scientists who are clear in their concepts are at least thirty years behind their times.

Progress in philosophy involves the explicit statement of assumptions implicit in previous philosophers. Rationalism never deserts standards of criticism. We philosophize because we believe; we do not believe because we philosophize. Philosophy is a criticism of belief—preserving, deepening, and modifying it. Standards of criticism are: (1) intensity of belief, (2) concurrence in belief, (3) clear expression of belief, (4) analysis of belief, (5) logical coherence of belief, (6) exemplification of belief, and (7) adequacy of belief.

The old notion of self-evidence obviously refers to an ideal, not a fact. The old rationalism was founded on the ideal of the clear intellect—but there is no such intellect. Some facts are luminously obvious, but the rest of our experience is obscured in a deep, penumbral shadow with reference to which our intellectual faculty varies from that of a savage to that of a jellyfish. A most colossal example of exploded self-evidence is the long-held belief that euclidean geometry applies to real space.

LECTURES BY PROFESSOR WHITEHEAD ON DESCARTES

Descartes emphasizes the permanent and enduring, as opposed to the flux. He sees the world as definite substances. He is a mathematical intellect and always states definitely and clearly what he means.

Descartes was a mathematician; his philosophy was a philosophy calculated to include mathematical physics, and it is pervaded by the mathematical intellect. We must compare Descartes with Plato, also a mathematician. Aristotle revolted against the rationalism of Plato; Dewey against that of Descartes. Whitehead's type of rationalism takes a middle course which corrects the false method of Descartes and which is easily reconciled with the pragmatic point of view.

The Greeks thought that their logic and mathematics exhausted the possibilities of rationalism, and they also thought that the Greek language was adequate for philosophical discussion.

Rationalism is an ultimate faith. Descartes' metaphysical method is the method of Euclid. This is a false method. Pure thinking cannot produce knowledge about the real world.

Cartesian rationalism proceeds by discarding complexity in order to arrive at simple notions immediately obvious. Modern rationalism uses the Cartesian method of discard as a preliminary guide to imaginative construction; but its essential point is that it starts with an imaginative system of ideas, the logical connections of which have been thoroughly explored. The logical exploration shows that there is no one set of premises from which the remainder of the system is a deduction. Nor is there any one set of simple notions from which the remainder are simple constructions. Modern rationalism must have recourse to the obviousness of experience.

The ultimate real actual entity is to be considered an *actual occasion*—something that happens, and its time-fulness is of the essence of it—which is an individuation or concretion of the entire universe into the one real actual unity which is self-presentation, i.e., a presentation of itself to itself in its character of being that representation of the universe. This self-presentation is also to be looked on as a self-valuation, and in being an end for itself it thereby constitutes the character of the concrescence which succeeds it.

Eternal objects (universals) have ingression into actual occasions. These modes of ingression of the eternal objects constitute the relations among the actual occasions.

The most concrete occasion is dipolar. The two poles, mental and physical, cannot be separated, but the two may not be of the same strength or importance. One pole is the primary and synthetic side of the actual occasion; we call that the physical occasion. It is to be described in synthetical terms. The other pole is the secondary and analytic side of the actual occasion; this we call the mental occasion. It is the self-knowledge which supersedes on the synthesizing of the actual occasion. It is an endowing of the physical occasion and a putting together of it afresh.

Knowledge is the concrescence of two modes of functioning (ingression) of the eternal object. Both have a common past and a common future, but they are mutually independent in respect of their originality. The first mode of ingression is perceptual (physical); the second is conceptual (mental). Conceptual functioning is a mode of analysis of the physical occasion.

Whitehead does not believe that there are different kinds of actual things. The same principle explains everything. Different things fall into different categories, but the fact of being actual is a common fact explainable in a single way. "Being actual" cannot be equivocal.

Meanings of *immediate experience*: (1) the physical occasion, the primary self-presentation arising out of the representation in itself of the entire universe. It is pure perceptivity, whereby an actual object emerges from the limitations imposed on it by the universe; (2) the mental occasion, originating from the imagination; (3) the ultimate concrete occasion, both physical and mental, the ultimate concrete fact. The actual

fact is the immediate experience, but by this we sometimes mean some abstraction from it.

Predication has not an unequivocal meaning. The confusions of metaphysics are due to failure to distinguish the various meanings of predication. The assumption that there is a definite metaphysical fact underlying the *is*, is false. Every proposition must be considered with reference to the whole universe. (This is Bradley's doctrine.) Reality is the final subject of every proposition. An offshoot of the subject-predicate theory of knowledge is the subject-object theory of knowledge; after the subject modified by *its* object comes the subject qualified by *its* ideas. The subject with its private complex of predicates is a trap into which the philosophers fall; there is no such privacy, because of the relevancy of the whole universe. The subject-predicate theory holds that the vulgar form of language enshrines metaphysical reality; this is the easiest metaphysics to grasp, but not true. We must start with some more general notion than that of predication. This general notion we shall call *relevance*. There are stages of relevance and intensity of relevance; irrelevance is the lowest stage of relevance. Descartes' philosophy corrects some of the major excesses resulting from the subject-predicate complex which dominated medieval philosophy. Locke corrected it further. But neither grasped the fact that the notion of substance is a result of the subject predicate logic and has no metaphysical status. Whenever they are not thinking of what they are criticizing, they fall into the trap.

Inadequacies of Cartesianism: (1) Descartes' view of substantial independence is the subtle psychological origin of many of the shortcomings of our modern civilization. Moreover, it is a view fatal to the essential doctrine of the solidarity of the universe. The view of substantial independence has haunted all modern philosophy, including the anti-Cartesian; it is responsible for Hegel's absolute, Spencer's unknowable, Bradley's absolute. It is also destructive of ethics; social ethics is the conciliation of two doctrines: thou shalt not steal (individualistic, substantial independence), and property is robbery (socialistic solidarity). Law and social ethics are concerned with conciliating these two attitudes, individualism and solidarity. This is also, more generally, the business of metaphysics; how can there be individuals with separate ends and yet combined in a solid community? (2) Cartesianism makes any reference to a general end irrelevant to existence.

Criticism of Descartes: (1) Whitehead agrees with Descartes in identifying substance with the actual entity. (2) Whitehead disagrees with Descartes in rejecting the subject-predicate form of expression as representing any metaphysical truth. (3) Whitehead disagrees with Descartes in maintaining the notion of the universal relevance of all entities, actual and nonactual. There are three types of entities: eternal objects, actual entities, objective occasions; the third is derivable from the other two. All are universally mutually relevant. (4) In Descartes, God is the only self-creative substance, the process of creation being also the creator. In Whitehead, this is the general characteristic of all actual entities.

LECTURES BY PROFESSOR WHITEHEAD ON METAPHYSICS

Six principles of metaphysics: [cf 1:332f]

1. The principle of solidarity. Every actual entity requires all other entities, actual or ideal, in order to exist.

2. The principle of creative individuality. Every actual entity is a process which is its own result, depending on its own limitations.

3. The principle of efficient causation. Every actual entity by the fact of its own individuality contributes to the character of processes which are actual entities superseding itself.

4. The ontological principle. The character of creativity is derived from its own creatures and expressed by its own creatures.

5. The principle of esthetic individuality. Every actual entity is an end in itself for itself, involving its measure of self-satisfaction individual to itself and constituting the result of itself-as-process.

6. The principle of ideal comparison. Every creature involves in its own constitution an ideal reference to ideal creatures: (1) in ideal relationship to each other, and (2) in comparison with its own self-satisfaction [cf RM 155].

These principles are essential to actuality, and so apply equally well to God (pure act). It follows that God is a creature; the supreme actuality is the supreme creature. The only alternatives are to say that God is not actual or that God lies beyond anything of which we can have any conception.

The doctrine of concrescence is derived from the first two principles. The actual entity is not an individual apart from its solidarity with the whole universe; it is an individual by means of that solidarity. The specific value of the individual occasion arises from the end obtained individually, but it includes in its concrescence the relevance of ends beyond itself. This is the doctrine of social solidarity.

By the ontological principle there is a creature by virtue of which creativity bears its character; there is a creature by virtue of which there is a science of metaphysics. Thus, there is a creature with a general relation to all creatures including itself. This creature requires all other creatures in order to exist and, yet, is in a sense ontologically prior to them since its character determines the metaphysical laws and is determined by them. This creature is a process which is its own result, like all other creatures; it is in a sense self-creative. It depends for its actuality upon its own limitations. God is limited by his goodness. This creature contributes to the character of all the creatures superseding it. This creature is an end in itself. It involves in its own constitution an ideal reference to ideal creatures in ideal relationships to each other.

There are only two metaphysical principles in virtue of which the existence of an actual entity can be inferred; to wit, the principle of efficient causation, and the ontological principle, in virtue of which any generality of character shared among entities presupposes a character of generality. The ontological principle denies that whatever is to be known is derivative from actual fact. Knowledge is the synthesis of the two poles of the actual occasion (mental and physical) described from the point of view of what the mental activity contributes. There is an actual entity which is more than its objectification.

Demonstration is how the relativity of objectification is transcended.

Given an actual entity, *B*, consider how an eternal object *A* may have ingression into *B*. (1) *A* may have ingression into *B* as constituting a physical relationship between *B* and some other actual entity, *B'*. (2) *A* does enter into *B* as constituting a conceptual relationship between *B* and each particular occasion *X*, whereby the patience of *X* for its physical relationship to *B* is objectified for *B*. This mode of ingression involves the yes-form and the no-form of comparison. (3) *A* does enter into *B* as constituting a conceptual relationship between *B* and the universe as systematically patient of *A*. (4) *A* does enter into *B* as constituting a conceptual relationship between *B* and the *environmental* universe as systematically patient or impatient of *A* by reason of its environmental character.

There is an actual universe which is a multiplicity of actual entities. An actual entity is an act of percipience. Every actual entity has its peculiar mode of percipience. The universals are the specific character of specific perceptions. There are no dead (nondynamic) entities. Every entity expresses some way in which the creativity is objectified. Creativity is the most general form. It acquires its specific character in each individual actual entity. A historic creature is a succession of actual entities peculiarly congruent to each other. One's view of his own past is the same in principle as his view of the past of another person or thing, but so tremendously different quantitatively in intensity as to amount practically to a qualitative difference.

The potentiality of a creature is the range of alternative characters for that creature which are compatible with the efficient causation whereby the concrescence of that creature is derived from other creatures. Potentiality is definite with respect to the generic sort but ambiguous with respect to the specific mode. The creature realizes not only the specific mode that it is but also the genus of modes which it might have been. The notion of probability is derived from that of potentiality.

Curiously mixed with the notion of potentiality is the notion of endurance. Descartes distinguishes between endurance and measured time. The fact of self-existence has duration. The epochal occasion which we apprehend as the present is one occasion, but it might have been twenty epochal occasions. Endurance is an instance of unrealized potentiality.

LECTURES BY PROFESSOR WHITEHEAD

We can define what we mean by things going on without reference to the idea of stuff, but we do require the notion of an actuality which emerges from a potentiality. We can define an ether of events as opposed to an ether of stuff. The condition of the immediate can only be formed in terms of a continuum, but the group of actual entities which arise are definite quanta determined by the conditions of the past and by what (if anything) is added by the act of self-creation. The process of self-formation is not in time, but is determined by the way the organism feels in the nontemporal process of being itself.

Ether, the one genus of physical fact. Whitehead agrees with the principle upheld by nineteenth-century materialists, that there is only one genus of physical facts. This is where Descartes started: all physical facts are facts about corporeal substance, The substance emerges from

the activity which synthesizes the attributes. It is wrong to think of the attributes as emerging from the substance.

The seventeenth-century metaphysical foundation of science was good for 300 years—proof of its great merit. They attempted to start from something which is in our immediate knowledge. But now we look on a physical object, not as a continuous corporeal reality only relatively at rest, but as a violent activity of infinitesimal organisms. The fundamental idea we have in experience is that of an actual entity. We experience ourselves as actual entities in a community of actual entities. In seeking to know what we mean by an actual entity, we should have recourse to ourselves. This is what Descartes did, but he only found a mind, at least at first. What we know of ourselves is not, as usually put, a mysterious substratum with an enormous and very doubtfully remembered life history, decorated with transient qualities but getting its character from some simple attribute which it always carries around with it. What we find is an active experience, very vaguely delimited from its antecedents and successors. It is a peculiarly linked succession of acts of experience with a singular unity, so that each act integrates the antecedent acts. The actual entity is a succession of acts of experience. An act of experience is primarily a taking account of other actual entities. This taking account of other actual entities is analyzable, but it is a certain real togetherness issuing in a certain vivid intensity which we call self-value. The entity rises out of a constitutive activity analyzable into elements which are not actual entities. This view opposes the materialistic view of nature introduced by Descartes.

The actual entity is dipolar. It is perceptivity which turns of itself into conceptual analysis. But the intensity of being does not necessarily lie equally between the two poles. One or the other may be negligible.

Each actual entity arises from its taking account of the whole past. It cannot have any intensity of being unless the important part of the past is favorable to its existence at a particular intensity.

The primary aspect of the physical world is to be conceived in terms of extension. The notion of extension is the primary description of how an actual entity is an organism and how it takes account of all other entities. Extension is extremely abstract, because extension only partly represents my relation to the physical object. It is an abstract statement of certain aspects of the relationship. Descartes looked on extension as an attribute of the extended things. Whitehead looks on extension as one very abstract side in the relationship of things. Descartes thought of extension in terms of geometry. He also had another principal attribute: endurance. But time is also an extensive quantity. There is something common to space and time; this is extension. Nowadays we do not consider space and time as so sharply distinguished. The first element in the connection between time and space is the primary abstract organic relation of being extended. This is compatible with a static universe. The incompleteness supervenes upon the morphological extensiveness.

REFERENCE

1. Victor Lowe. "Whitehead's Gifford Lectures." *Southern Journal of Philosophy*, 7/4 (Winter, 1969-70), 329-38.