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THE NATURE OF KNOWLEDGE AND THE ROLE OF FAITH
IN GREEK THOUGHT FROM THALES TO ARISTOTLE

A Thesis
Presented to
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In Partial Fulfillment
of the Requirements for the Degree
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ADDENDA AND ERRATA

- p. 115--Footnote 31 should be included
reading: Cf. Jaeger's discussion of
this op. cit., circa p. 165.
- p. 136--Footnote 17 should be Footnote 17a.
- p. 152--The second p. 152 should be p. 152a.

PART ONE

PROLEGOMENA

CHAPTER I

INTRODUCTION

In the "Epistle to the Reader" which prefaces his Essay Concerning Human Understanding, John Locke told of the beginning of his inquiries into human knowledge:

Were it fit to trouble thee with the history of this essay, I should tell thee, that five or six friends meeting at my chamber, and discoursing on a subject very remote from this, found themselves quickly at a stand, by the difficulties that rose on every side. After we had awhile puzzled ourselves, without coming any nearer a resolution of those doubts which perplexed us, it came into my thoughts that we took a wrong course, and that before we set ourselves upon inquiries of that nature, it was necessary to examine our own abilities, and see what objects our understandings were, or were not fitted to deal with. . . .¹

The problem which Locke posed for himself has come in later years to be called the epistemological problem, and he was not the only one who feels or has felt that such considerations must come before one can be certain of any of the conclusions of metaphysics.

The problem has pushed itself onto the minds of men throughout history probably because of the inconsistencies in the answers given to the problems of reality. If there were only one man who had ever lived, the problem of knowledge might never arisen; but because there were five or six men in Locke's club and because there were seemingly unreasonable conflicts between Heraclitus and Parmenides, the questions

¹ John Locke. Philosophical Works, Volume I, p. 118.

concerning man's ability to know reality, in whatever form it may exist, have arisen. Such considerations are the beginning of humility, though they can reach the extremes of complete agnosticism and scepticism.

The problem becomes serious when one man's answers do not agree with another man's answers to the same problem and yet the true answer is vital to both men. Here is the problem of faith, and it asks the question, "Do I dare believe my answer though it may be fragmentary?" The problem of faith is therefore felt to be essentially an epistemological problem. This is more the case the more difficult the problem becomes, the more vital it becomes, and the more rationally fragmentary the answers seem to be. It seems that men are never fully satisfied or intellectually secure with fragments; they must have wholes. Even in the simpler problems, man is constantly filling in the gap between his certainties and his uncertainties and between his demonstrables and his undemonstrables with a faith of some sort to round out the picture. In the more difficult problems, the question of faith becomes even more acute, for the rational certainties are reduced to a minimum.

To return to Locke, it is evident that the problem of faith and reason were closely akin for him. He declared his purpose to be "to inquire into the origin, certainty and extent of human knowledge, together with the grounds and degrees

of belief, opinion, and assent. . ."²

This was not only a problem of Locke's day, but this study indicates that it was also an ancient problem.

John Bennett has made a recent attempt to delineate the problems which still face theology and the philosophy of religion. Among these problems, he feels that the problem of the relation between faith and knowledge is the major³ problem still confronting religion. If there is such a relationship between faith and knowledge, what is it? Are they direct opposites or are they identical? If they are related, are they necessary to each other? Do they have an ontic relationship in that one is only operative in one sphere while the other is only operative in another sphere? Does one know some things while he can only believe other things? Can one know anything? Is every assertion a faith-venture? On the other hand, is reason able to grasp all things, given time enough, so that faith is a false or temporary invention? If faith exists, is it native or bestowed, a natural activity or a supernatural gift? These are merely a few of the many questions that might be asked, but these indicate how closely linked is the problem of faith with the problem of knowledge. The questions might be summed up

² Ibid., p. 128.

³ John Bennett, "The Outlook for Theology", Journal of Religion, October, 1941, Volume XXI, Number 4, pp. 341 ff. Cited by Nels Ferre. Faith and Reason, p. 217.

in short: What can we know, and when, and how? What can we believe, and when, and how much?

I. THE PURPOSE OF THIS STUDY

The complexity of the problem is indicated in the few questions which have already been raised, but the immediate purpose of this study was not to give a constructive and unified answer to the problem of faith and knowledge but to trace the historical attempts, in Greek thought both explicit and implicit, at relating knowledge to reality and where faith fits into such a scheme.

Therefore, the first task was to find the general theories of knowledge in the history of Greek philosophy. Following each theory of knowledge, the role of faith as it appears in that particular theory is discussed.

The paper is based on the assumption that the idea of faith is not divorced from epistemological assertions or assumptions as they appear in history. It is felt that the study which follows indicates the validity of this assumption.

II. A DISCUSSION OF TERMS

To forestall any ambiguity which might arise in the use of terms in this study, this section is set aside for a careful delineation and definition of terms both by comparison and by contrast. Since these terms are largely philosophical terms, easy definitions do not exist. There

fore, it will be necessary not only to define but to discuss the terms.

Though "faith" is not necessarily a philosophical term, yet its presence in some form, such as "opinion", "belief", "assumption", is common. (Religious faith is considered to be a more exhaustive term than these.) Some sort of grasp of the concept of faith is necessary in the beginning. Therefore, this working definition is proposed: Faith is regarded as referring to any intellectual extra-rational process of assuming a thing to be true, though it is not obviously so, usually on the basis of what is regarded to be evident truth, and of acting with certainty on the basis of the assumption itself.

"Knowledge" has three general definitions. It can mean the cognitive aspect of consciousness in general which appears in two forms: the knowledge of acquaintance, perception, apprehension, or recognition ($\gamma\upsilon\omega\nu\alpha$), noscere, Kennen, connaître), and knowledge about something or someone, understanding or comprehension ($\epsilon\acute{\iota}\delta\epsilon\iota\nu\alpha$), scire, Wissen, savior). By way of parenthesis, "cognition" means "to be aware of an object". It is an ultimate mode of consciousness along with conation (will) and affection (emotion). An alternate term for cognition is "intellection"⁴. In the

⁴ G. F. Stout and J. M. Baldwin. "Cognition". Dictionary of Philosophy and Psychology, Volume I (J. M. Baldwin, editor), p. 102.

second place, knowledge can be taken to mean certitude based on adequate objective grounds in contrast to the form of mere opinion or belief which may exist without adequate objective foundations. Lastly, knowledge can be used to stand for what is known to date. Thus one speaks of a body⁵ of knowledge.

If knowledge is considered as synonymous with cognition, as it is in the first definition, it must also fulfill three conditions to be a perfect cognition: it must hold a proposition to be true that is true; it must be completely free from doubt; and it must be self-satisfying in such a way that it would be logically impossible for such a satisfaction to belong to an untrue proposition.⁶

To assume a working definition of "knowledge", the first general definition is proposed in this form: Knowledge is the awareness of an object (cognition), either by acquaintance (knowledge of) or understanding (knowledge about) or both, in such a way that the cognition is regarded as true to the identity of the object, without a doubt, and in a self-satis-

⁵ Stout and Baldwin. op. cit., pp. 602-603.

⁶ C. S. Peirce and Mrs. C. Ladd-Franklin. "Knowledge (in logic)". Dictionary of Philosophy and Psychology, Volume I (J. M. Baldwin, editor), p. 603.

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 fying way which would be impossible if the cognition were untrue.

A two-fold problem now presents itself: How is knowledge acquired, or in other words, what is the process the mind uses to make an external event or object a part of the mental grasp? And how can one be sure that what is acquired is trustworthy, a faithful copy of the thing-in-itself? These are the two main problems of any theory of knowledge.⁸

The philosophical name given to the study of these two problems is Epistemology. A broad definition of Epistemology is that it is the theory of the origin, nature and limits of knowledge, but this definition would be more of a definition of "Gnosiology". Andrew Seth Pringle-Pattison gives the following narrower definition of Epistemology:

The systematic analysis of the conceptions employed by ordinary and scientific thought in interpreting the world, and including an investigation of the act of knowledge, or the nature of knowledge as such, with a view to determine its ontological significance; otherwise known as Theory of Knowledge.⁹

⁷ Contrast this with the previous definition of faith. Knowledge is cognitive certainty; faith is extra-rational certainty of a nearly demonstrative, rationally necessary, or rationally permissable type. Cf. the discussion in Chapter II.

⁸ Warren Nelson Nevins. Religion As Experience and Truth, pp. 153-155. For a further discussion of these problems, cf. "Chapter II: Basic Considerations".

⁹ Andrew Seth Pringle-Pattison. "Epistemology". Dictionary of Philosophy and Psychology, Volume I, pp. 333. Cf. also J. M. Baldwin's discussion on pp. 333 and 414, along with Pringle-Pattison's discussion on pp. 333-336.

Douglas Clyde Macintosh gives, in a popular form, the duty of Epistemology:

Epistemology will have vindicated its right to exist, if it enables us to know that we know, when we do know, and to know that we do not know, when we do not know.¹⁰

It is important to consider some things which Epistemology is not. It is distinguished from Ontology or Metaphysics.¹¹ Philosophy is made up of two main divisions at least, the theory of knowing and the theory of being. These are called Epistemology and Ontology or Metaphysics respectively. These are complementary inquiries and are closely allied. Some even refuse to distinguish between them, but a theory of knowledge cannot give all that must be included under Ontology.¹² Thus Ontology gives a coherent system of the universe while Epistemology tests the validity of the system, or better, the ability of the systematizer. Epistemology¹³ is therefore a theory of theories.

A more difficult differentiation should be made between Epistemology and Logic. Some people identify the two, while some make Epistemology a branch of Logic. Pringle-Pattison

¹⁰ Douglas Clyde Macintosh. The Problems of Knowledge, p. 10.

¹¹ No distinction is made between the terms "Ontology" and "Metaphysics".

¹² Pringle-Pattison. op. cit., p. 336.

¹³ Two interesting discussions of this problem appear in Ledger Wood. The Analysis of Knowledge, p. 21, and Nevius. op. cit., pp. 155-156.

suggests that the best logical treatises contain much epistemological material, yet the usage of Logic as the science of formal thought, the principles of formal consistency in moving from one statement to another, are firmly established. They assume an epistemological basis. Logic is the process; Epistemology is the philosophy of the process.

One more distinction should be made. Epistemology should be differentiated from Psychology. The latter studies psychic factors objectively as other sciences study their factors, but Epistemology studies the relation of these psychic factors to the actual objects of thought. Pringle-Pattison says:

In brief, psychology, although dealing in popular parlance with the subjective facts, like any natural science, as an objective world in which it traces causal connections, concomitances, or sequences, and the evolution of the more complete from simpler formations. But it does not analyse the subject-object relation which constitutes knowledge as such, and which is the presupposition of psychology as well as of every other science. To analyse this relation and its implications is the specific task of epistemology.¹⁵

III. THE METHOD OF PROCEDURE

As has been noted, epistemology refers to the relation between the subject and the object. With this in mind, it is evidently necessary for a study of Greek theories of knowledge to spend much time with the status of objects as well

¹⁵ Ibid., p. 336.

as with subjective abilities and the relation between the two.

It has also been pointed out that epistemology as a separate study is a comparatively new venture. This means that Greek philosophy for the most part does not spend a great deal of separate discussion on the problem. One has to go through the writings of these men and distill out the statements and ideas that have epistemological significance whether they be explicit or implicit.

Thus the general method has been a discussion of various ideas of these Greek thinkers and then a drawing-out of the various ideas of knowledge and the places where faith plays a prominent role.

As to specific procedure, the study has been divided into five parts. Part One is a prolegomena with two chapters: an introduction contains a discussion of terms, a discussion of purpose, and a section on procedure. Part Two contains a discussion of Greek thought from Thales to the Semi-Socratics. It contains two chapters: the former contains a discussion of the early Greek thinkers, and the latter contains a discussion of the Sophists, Socrates, and the semi-Socratics (the Cynics and the Cyrenaics). Part Three discusses Plato and is divided

into three chapters dealing with Plato's earlier dialogues, his later dialogues, and concluding statements respectively. Part Four contains the study of Aristotle. It is divided into four chapters dealing with his logic, his metaphysics, his psychology, and a chapter on conclusions. Part Five contains only one chapter on general conclusions.

CHAPTER II

BASIC CONSIDERATIONS

Epistemology as a separate study is a fairly recent development. Since the days of Descartes and Locke, however, it has occupied a foremost position. With the abandonment of metaphysics in many quarters in recent times, the study of the origin and nature of knowledge has even taken on more prominence. In fact, the very study of knowledge probably¹ undermined the study of being.

But in the age of the Greek metaphysicians, the theory of knowledge was not absent. In fact, wherever a man proposes a statement of fact or an explanation of something, there is present in his thinking a residual theory of knowledge or at least a faith in his own abilities to know. The same holds true primarily for the pre-Socratics. Involved in their cosmologies were implicit (some explicit) assurances or convictions that they had the ability to know things as they are. The Sophists were sceptical of the ability to know, and from that time on every serious-minded thinker has had to make it part of his consideration to bulwark his theory with some sort of epistemological considerations.

¹ Andrew Seth Pringle-Pattison. "Epistemology". Dictionary of Philosophy and Psychology, Volume I. (J. M. Baldwin, editor), pp. 333-335.

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Plato and Aristotle did it.

Since theories of the origin and nature of knowledge have always been present in some form, and since any approach to ancient thought must begin at the point where one lives and thinks, some of the present insights into these epistemological problems will be utilized in the approach to the problem of knowledge in Greek thought. It is for the purpose³ of lifting up these insights that this chapter is included.

I. THE KNOWLEDGE-SITUATION

Philosophers and psychologists have, especially in the past, attempted to classify the functions of the mind. The usual classification seems to be the three-fold division into⁴ intellect, will, and emotion. But an analysis of the functions of the mind is not of importance to the knowledge-situation. Epistemology is interested in the relation of the subject to a real or supposed object.

Thus an indispensable feature in the knowledge situation is what Ledger Wood calls "referential transcendence",⁵

² Friedrich Paulsen. Introduction to Philosophy, pp. 339-340.

³ Pringle-Pattison. loc. cit.

⁴ Cf. G. F. Stout. "Classification (of the mental functions)". Dictionary of Philosophy and Psychology, Volume I. (J. M. Baldwin, editor), p. 188.

⁵ Ledger Wood. Analysis of Knowledge, p. 9.

which is a reference to something beyond the knower or the knowledge. Wood describes this function as a most mystifying thing:

The mind can refer to an object, but one object properly speaking, never refers to another object, even though it may signify another by virtue of the inclusion of the two in the same referential scheme, and thus observation of physical phenomena affords no clue to the understanding of conscious reference. But when one seeks to examine directly the referential function of conscious content, one encounters the observational difficulty that the act of reference is inscrutable at the time when it prevails in consciousness. Any given referential act is directed towards its proper referent and cannot be an object for itself, but only for some subsequent referential act. Reference, because it is intrinsic to the cognitive act, is no more capable of self-scrutiny than is the eye, which is the organ of vision, capable of seeing itself.⁶

This may mean that epistemology can never become a pure science, and it may partly account for the necessary extrarational elements in the theory of knowledge.

There seem to be three factors in the knowledge-situation, according to the classical representative view. These are Subject (S), the Content of knowledge (C), and the Object of knowledge (O). Each can be differentiated from the other two. This can be easily seen when the three elements appear in the memory situation especially: the present act of remembering (S), the memory image (C), and the past event remembered (O). Descartes, Hobbes, Locke, and Kant are a few of the names of those who maintain this view.

⁶ Ibid., p. 12.

This theory is not the crude "copy theory". The difference is plainly shown in Wood's words:

Two trees in a forest may be similar although in no sense is the one a representative of the other. On the other hand, the printed word 'tree' is symbolically representative of the tree in the forest, but there is no significant resemblance between the black shapes on the page and the living structures to which they refer.⁷

Thus there may be a wide divergence between the object and the content of thought.

It should be noted, as Wood points out, that there is no pure application of this tri-partite representative theory of knowledge. Historic theories have actually been hybrid. One theory, for instance, might hold to a representative form of perceptive knowledge with a ⁸intuitional or immediate theory of the knowledge of universals.

Following the symbolism previously given (S, C, and O), there are two alternatives to the representative theory. The first involves the fusion of S and C; the second involves the fusion of C and O.

In discussing the fusion of S and C, Wood reveals that his position is to be found substantially in this area. He says that there are no legitimate psychological or epistemological grounds for splitting consciousness into act and con-

⁷ Ibid., pp. 18-19. Cf. also pp. 16 ff.

⁸ Ibid., p. 18.

tent as he feels the old theory does:

Consciousness is a process in which the existence of content is ipso facto the awareness of it. There is, strictly speaking, no consciousness of content, but merely the conscious presence of conscious content.

He continues later:

The telescoping of S and C accomplishes a great simplification of the epistemological situation, for now a single conscious process, considered as a fusion of activity and content, serves both as subject and as vehicle of knowledge.⁹

He calls his theory the intentional or referential theory and divides the knowledge-situation into the ideational content and the cognitive object. By the latter he means the epistemic object rather than any object that must have ontic status.¹⁰

C. I. Lewis also divides the knowledge-situation into two elements, but his words seem also to indicate the presence of a mind as a third factor:

There are, in our cognitive experience, two elements; the immediate data, such as those of sense, which are presented or given to the mind, and a form, construction, or interpretation, which represents the activity of thought.¹¹

The second alternative to the representative theory makes a fusion between C and O. Most types of epistemological doctrine are interested in the relation between C and O

⁹ Ibid., pp. 20, 21 respectively.

¹⁰ Ibid., pp. 18, and 22-24.

¹¹ Clarence Irving Lewis. Mind and the World-Order, p. 38.

though not all are willing to fuse the two. One way of fusing these elements involves the telescoping of O into C so that O is virtually denied. The result is subjectivism or idealism. Leibniz with his monadology is one of the classic representatives of this thought. Hocking says his thought is almost literally "a cosmic egoism". His doctrine is summed up in the words, "The world is my representation".

Hocking says that Leibniz regarded each self to be a monad, "a completely closed universe of experience, unrolling its own panorama in perfect independence of, but also in perfect synchronism with, that of every other monad."¹² However, as Lewis suggests, it is doubtful that any theory which fuses these elements is completely free from making some distinction between them. Both Berkeley and Kant leave a link between the individual mind and the outer world.¹³

The fusion of C and O so that C is practically eliminated is called pan-objectivism by Wood. In other words, the object is regarded as directly apprehended by the knowing subject. The object cognized persists during inter-cognitive periods and preserves the same properties as when cognized. Bergson and the neo-realists, especially of the

¹² William Ernest Hocking. Types of Philosophy, p. 285.

¹³ Lewis. op. cit., p. 39. Cf. Hocking. loc. cit. and also Wood. op. cit., pp. 21-22. The last reference gives a discussion of this type of fusion of C and O.

¹⁴ Wood. op. cit., p. 22.

American variety, are examples of this feature. Lewis reviews the position of Bergson:

The reason why Bergson identifies the truest knowledge with "intuition" is similarly rooted in metaphysical theory and not in any divergent reading of our ordinary experience. For him, the ultimate reality is life, or the inwardly grasped "real duration." For each mind, this is something which is immediate, in his own case, and is to be apprehended in its other manifestations only by empathy or empathie. The world of science and common sense Bergson recognizes to be construction or interpretation which the mind imposes upon the data of immediacy. Also, he is explicit that this construction is dominated by interests of action and of social coöperation. But the space-world which results from such interpretation, he regards as not an ultimate reality; hence the cognitive experience which includes this interpretive element is not a theoretically adequate knowledge. In short, with Bergson as with the mystics, identification of knowledge with intuitive apprehension of the immediate reflects no basic difference in the analysis of ordinary experience but rather a difference in the denotation given to the phrase "true knowledge" because of a metaphysical theory which denies ultimate reality to what is cognized by science and common sense.¹⁵

(It should be said that the intuitive philosophy of Bergson is different from that of the neo-realists. They are mentioned together since both emphasize the immediacy of knowledge.)

It is not the purpose of this study to attempt an adequate analysis of the knowledge-situation. However, it should be pointed out that knowledge, as the awareness of an object supposedly real, must be regarded as truly knowledge only when the object is actually real--that is, is an ontic, as well as an epistemic object. It may not be important,

¹⁵ Lewis. op. cit., pp. 41-42.

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as Wood suggests, for the subject to have a real object if he thinks it is real--that is, as far as his own actions and reactions are concerned--, but it is very important that the object be truly real if actual knowing is to take place. Thus, in a sense, any theory of the knowledge-situation, whether representative or otherwise, must break down into two elements, the knower and the known. The content and the object must be identical, except where the content is a symbolic representation of the object.

There are two possible exceptions to this statement that knowledge must be awareness of the actual object. They are apodictic and problematic knowledge as other than the knowledge of actual reality which is known as assertoric knowledge. These terms are the modalistic terms of traditional logic and they correspond to modality in ontology by which is meant the modes in which all things exist, namely, actuality, possibility, and necessity.¹⁷ Definitions of these three modes of knowledge are as follows: Assertoric knowledge is, "Knowledge of what is actual or occurring. . . ." Apodictic knowledge is, "Knowledge of what must occur, as opposed to knowledge of what might occur or is capable of occurring,

¹⁶ Wood. op. cit., pp. 22-24. Wood would endorse only the first part of this statement.

¹⁷ Cf. Otto F Krushaar. "Modality", The Dictionary of Philosophy. (Second edition) (Dagobert D. Runes, editor), p. 200.

or of what is actual or occurring. . . ." Problematic knowledge is, "Knowledge of what might occur or is capable of occurring as opposed to knowledge of what is actual or of what must occur. . . ."¹⁸

There are some who are unwilling to say that a thing is real that is not actual and therefore there is no real knowledge other than assertoric knowledge. Therefore, the modals are regarded as the two remaining types of awareness which are something less than knowledge. For this reason it was stated that these two elements are possible exceptions.¹⁹

II. AREAS OF KNOWLEDGE

There are several common areas in which it seems to be generally regarded that a knowledge-situation can be established. Wood suggests six areas which will be now discussed. They are: perception, perceptual memory, historical cognition, introspective cognition, cognition of other selves,²⁰ and conceptual cognition.

¹⁸ A. Cornelius Benjamin. "Assertoric Knowledge", "Apodictic Knowledge", and "Problematic Knowledge". The Dictionary of Philosophy. (Second edition) (Dagobert D. R Runes, editor), pp. 25, 15 and 255 respectively. Cf. also Alonzo Church. "Modality" (second definition)". The Dictionary of Philosophy, p. 200.

¹⁹ Cf. Chapter VIII in which the term "modal" refers to the two exceptions to assertoric knowledge.

²⁰ Cf. Wood. op. cit., pp. 24-28.

It should be pointed out that there may be some who do not believe in knowledge as existing in these various areas, but who believe that knowledge is too complex a thing to be so categorized. Knowledge starts with perception (as with Bergson) or with conception (as with Plato), but becomes a complicated process. The complexity of knowledge may be granted, however, without nullifying the subjective differentiation between knowing things and knowing concepts, for instance. The differentiation into areas of knowledge is therefore done on the basis of differentiation of epistemic objects.

With these things in mind, one must approach the study of areas of knowledge with some hesitancy. For one does not need to delve too deeply beneath the surface to find vast complexities and with these complexities vast differences of opinion. A study of a cadaver can hardly give understanding of human life, but it is very difficult to imagine any understanding of human life which neglects the structure in which that life functions. Likewise, a study of areas of possible knowledge, on the basis of the various epistemic objects, can hardly be expected to give a total picture of knowledge, but it can hardly be that an understanding of human knowledge can neglect the various epistemic objects. The epistemic object and the subjective reference to it may not involve knowledge because the object

lacks ontic status or because of lack of correct reference, but it is not conceivable that an ontic object and a correct referential intention can be involved in knowing unless the ontic object becomes also epistemic. Therefore, there is some provocation for a brief study of the areas of possible knowledge--that is, the areas where epistemic objects are to be found and where reality is to be known if anywhere.

Perception is the name given to the relationship between the knower and the known which is the apprehension of phenomenal objects which are relatively contemporaneous--relative, in the sense that a cognitive act, even though involving immediate, or non-mediated, knowledge may involve a time distinction. It is largely sensate although there is a distinction between sensation and perception in that perception has both sense ingredients and interpretation.²¹

Blanshard gives the following definition and explanation:

Perception is that experience in which, on the warrant of something given in sensation at the time, we unreflectingly take some object to be before us. The terms 'object', 'unreflectingly', and 'sensation' call for comment. 'Object' is a wide term here; it may mean a certain being, a certain kind of thing, or what is not properly a thing at all, but a quality or relation. We are obviously perceiving, for example, when we happen to recognize our typewriter or our dog. We are also perceiving when we take something to be a typewriter or a dog. But we are no less perceiving when we listen to music or conversation, when we relish the taste of a

²¹ Cf. Wood. op. cit., p. 24 and Chapters II and III, pp. 29 ff. and Brand Blanshard. The Nature of Thought, Volume I, pp. 52-54.

plum pudding, when we observe one car to be going faster than another, or when we stop before a shop window to admire the blue in a new dress. In all these cases we are perceiving, because, with what is given in sense as our cue, we go on without reflection to take some object as presented. And it is evident that perception in this sense is an experience we have every hour of our waking lives. Unfortunately such extreme familiarity does not make it easier to analyse. It is so completely automatic and effortless that we seldom have occasion to think of it, and its parts are so cemented by habit that we are hardly able, even ideally, to take them apart.²²

There are, therefore, two factors in perception, sense-data (sense ingredients) and perceptual interpretation (perceptual judgment). As to the former, Van Steenberghen discusses "the corporeal datum", which is presented to the knowing subject under the following headings: (1) it is real; (2) it is corporeal or spatial; (3) it is temporal; (4) it is diversified; and (5) it presents a certain structure. But this analysis clearly presupposes that things are as they seem.²³ Wood, on the other hand, characterizes sense-data in four ways: (1) as to quality, such as color differentiation in vision; (2) intensity, such as the brightness or dullness of a color; (3) extensity, or spatiality; and (4) protensity or duration. (The last three are actually sub-divisions of the first.) It is felt that these are

²² Blanshard. op. cit., pp. 52-53.

²³ Fernand Van Steenberghen. Epistemology, pp. 110-112.

more adequate characteristics since they involve no ontological presuppositions. They refer to the relation between a subject and an epistemic object.²⁴ They are what are apprehended by the senses of sight, smell, hearing, taste, and touch.

How these sensate elements are apprehended is largely a matter for psychology to explain. The interpreting of them is an epistemological problem. Wood gives four principle interpretative activities in perception: (1) "Qualitative discrimination" divides sense qualities according to the homogeneity of the qualities. (2) "Sensory correlation" is the inferential and indirect inter-sensory association of heterogeneous groups of sense qualities into an integrated perception. Wood says:

The unification of heterogeneous sense qualities into an integrated perception, although performed unconsciously and without effort in any single act of perception, is conditioned by the most elaborate and intricate sensory correlations. We are able to bring together diverse sense qualities into an object only because of the cumulative effect of correlations arduously discovered in childhood and infancy.²⁵

(3) "Synthesis of thinghood" is the final grouping of sense elements into a perceptual object. (4) "External projection" is the final step. Wood says in this connection: "External-

²⁴ Wood. op. cit., pp. 38-44.

²⁵ Ibid., p. 58.

ity is a property of each of the individual qualities of the thing and of the collection of qualities which is the thing.²⁶

This analysis of the interpretative factor in perception is actually an attempt at seeing the elements which are involved. The seeming chronology is false for the whole judging process is immediate. (Wood is specific about this as is Bertrand Russell.)²⁷ But yet it is probably conditioned²⁸ by every individual during childhood and infancy. In fact, the role of perceptual meaning may be either a help or a hindrance in the grasp of truth. It may cause one to be blind to certain things; it may cause perceptions to vary from person to person; it may cause error. On the other hand, it may facilitate observation; it may cause perception to be faster; and it may help to maintain attention.²⁹ This is to list but a few of both hindrances and helps.

Before closing the discussion on perception, it should be noted that any such analytical approach to the subject is probably very dangerous and close to misapprehension. Such an investigation takes into consideration a singular object

²⁶ Ibid., p. 66. Cf. Chapter III, pp. 53 ff.

²⁷ Ibid., pp. 68-69 and Bertrand Russell. Problems of Philosophy, pp. 177-178.

²⁸ Wood. loc. cit.

²⁹ Cf. Blanshard. op. cit., pp. 213-214. Cf. Chapters IV, V, and VI, pp. 160 ff.

and a singular subject and a single knowing act in isolation. The least such an analysis can do is to regard also the exceedingly important interactions and interdependencies, not necessarily between object and subject, but especially between the object and other objects. What is referred to is the same thing that John Dewey calls the "situation", that is, the complexity of various objects and events. He says that there can be no knowledge of an object in isolation. He says:

In actual experience, there is never any such isolated singular object or event; an object or event is always a special part, phase, or aspect, of an enviroing experienced world—a situation. The singular object stands out conspicuously because of its especially focal and crucial position at a given time in determination of some problem of use or enjoyment which the total complex environment presents. There is always a field in which observation of this or that object or event occurs. Observation of the latter is made for the sake of finding out what that field is with reference to some active adaptive response to be made in carrying forward a course of behaviour. One has only to recur to animal perception, occurring by means of sense organs, to note that isolation of what is perceived from the course of life-behavior would be not only futile, but obstructive, in many cases fatally so.³⁰

In concluding this discussion of perception, Arthur E. Murphy's three suggestions, as to whether perceptual observation is a source of reliable information, are suggestive. He says, firstly, that perception is not infallible. Things may seem to be which are not. However, secondly, perception

³⁰ John Dewey. Logic, p. 67.

is corrigible in that, through further and more cautious observation, those things which are reliable can be distinguished from those that are not. It is thus self-correcting. Thirdly, it is the ultimate source of information concerning
³¹
 the external world.

More discussion has been expended on perception than would be legitimate for a survey chapter has not the role of perception played such an important role in modern philosophy. As Blanshard says, the theory is one of the important traditional battlegrounds of philosophy.
³²
 The discussion from here on follows Wood's analysis almost entirely.

Perceptual memory is the second possible area of cognition. This refers to apprehension by a subject of objects belonging to the perceptual past. Along with this cognition must be a realization that the perception was originally a past experience or else there will be a mere image as in an hallucination.
³³
 Thus there is an additional thing above the original perceptual situation. Such mnemonic cognition must not be confused with introspective memory which is a recalling of a previous psychological state. In the mnemonic situation,

³¹ Arthur E. Murphy. The Uses of Reason, pp. 35 ff.

³² Blanshard. op. cit., p. 52.

³³ Wood. op. cit., pp. 24-25.

the object is epistemic entirely although not without possible ontological moorings in the original object of perception. Perceptual memory is not stimulated by the senses; it is a time-transcending experience, and because it is, its characteristic feature is also a paradoxical feature. Since there is a projection of the mind into the past, it is an interpretative function. Being interpretative, it is subject to error. Delusions are also possible. When the original percept is distorted, a memory illusion results; when a pure imagination is placed in the place of the original percept, a memory hallucination results.³⁴

Historic cognition is non-perceptual apprehension of past objects. The objects were never perceived or if they were they were forgotten. It includes not only history in the limited sense but also astronomical, geological, anthropological, and archaeological reconstructions of the past. However, it is dependent upon perception of present documents, monuments, etc. or perceptual memory of them. There is a quasi-perceptual character to historic cognition for the objects envisioned are events or things as they appeared or might have appeared to a percipient whether actual or hypothetical.³⁵

³⁴ Ibid., pp. 70 ff.

³⁵ Ibid., pp. 25-26. Cf. also pp. 82-87.

Introspective cognition is the apprehension by a subject of earlier processes of the same subject. It is necessarily retrospective (memory) although the biggest share of memories are perceptual rather than introspective. Introspection may be directed to specific processes of the person's life or to the total self. However, of the latter, Wood says:

The self, however, considered as a psychic substance or pure ego, can never become an object of introspective scrutiny and is posited, if at all, on the basis of inference, and construction from the empirical self apprehended by introspection.³⁶

Introspection is supposedly a direct form of cognition, but this can hardly be anymore direct than perception and memory. It is knowledge in absentia.³⁷

Cognition of other subjects is the next possible area of knowledge. Wood suggests that belief in other psychic centers and a knowledge of their contents depend on introspection of one's own conscious processes. He suggests the following steps: (1) somatic perception or perception of one's own body and its discrimination from other perceptual objects; (2) perception of bodies other than one's own and the discrimination of these from the world of inanimate objects; (3) introspection of one's own cognitions and emotions and a reali-

³⁶ Ibid., p. 26.

³⁷ Loc. cit. Cf. also pp. 88-102 and Lewis. op. cit. Appendix D. "Mind's Knowledge of Itself", pp. 412 ff.

zation that he is subject of them; (4) a correlation of a subject's body with the results of introspection; (5) the "imaginative introjection of mental states and processes into the behaviour of other animate bodies.--The knowing subject reads a mind into the behaviour of other bodies because of the similarity of their behaviour to observed behaviour of his own which he has already correlated. . . with the introspectively apprehended process of his own mind."³⁸

The method just described of cognizing other subjects is an analogical method between the subject and his processes and the other subject and his processes. This is inferential and secondary, but there is a primary awareness of other subjects which does not seem to be inferential. It is a sense of immediate personal presence when other subjects are present. This, says Wood, is deeply rooted in social instincts and is a sort of empathy. But he insists that it is no institutional apprehension, as some do, for the minds of others are not public property to be cognized as a man cognizes his own processes. "Every cognizing subject," says Woods, "remain at home with himself, and his acquaintance with other selves is solely referential."³⁹

³⁸ Ibid., pp. 107-108.

³⁹ Ibid., p. 27. Cf. pp. 26-27 and pp. 103-129. There are two types of analogical cognition of other selves which have not been mentioned. They (continued--)

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Knowledge "by concepts of abstracta" or conceptual cognition differs from those discussed thus far in that it is not directed toward concrete objects whether actual or fictional but toward abstractions. Lewis defines a concept in an unusual way and makes community of meaning the characteristic feature of it. A concept for him is "that meaning which must be common to two minds when they understand each other by the use of a substantive or its equivalent."⁴¹ Conceptual cognition is therefore interpretative; it is a construction of the mind itself.⁴² It is obvious that such common meanings, which are here called concepts, transcend individual differences.⁴³ Whether these concepts actually exist or whether they are symbolic inventions of the mind is not for this paper to discuss fully. (The view of the Greeks is seen in the body of this paper.) Suffice it to say that the radical realist places the universal as the literal object of a concept, as a physical or supposedly physical

³⁹ (continued--) are biographical cognition, which is "the knowledge of other persons through inferences and descriptions rather than through direct or mediated contact with them" (p. 113), and fictional knowledge which is a variety of biographical knowledge and is the description of imaginative and non-existent personalities.

⁴⁰ Ibid., p. 27.

⁴¹ Lewis. op. cit., p. 70.

⁴² Ibid., p. 67.

⁴³ Ibid., p. 73.

thing is object of a percept. The non-realist is faced with the problem of accounting for this transcendent reference. There are four devices which Wood mentions: (1) to regard the object of a concept as a class or aggregation of particulars; (2) to regard the object of a concept as a relation of resemblance or similarity between particulars; (3) to regard the concept as having a hypothetical or supposititious object; or (4) to regard the object of a concept as resident in the particulars.⁴⁴

One type of conceptual cognition is categorial (a posteriori) knowledge. Dewey says: "Every conception functions as representative of a possible mode of operation may be called a category." However, he quickly adds:

Although in the history of philosophy, the word has been used to a large extent to designate only the conceptions that were taken to be ultimate (even so with little regard to their operational nature), yet ordinary language uses the word more widely.⁴⁵

Wood defines a category in the following way: It is "an ultimate and irreducible universal, a universal which can neither be resolved into nor subsumed under a higher universal." But he reveals his unrealistic approach by saying

⁴⁴ Wood. op. cit., pp. 130-132. Cf. pp. 130-143.

⁴⁵ Dewey. op. cit., p. 273.

that conceptually, it ⁴⁶ "is then a concept of high generality and wide application." Wood continues later by listing the categories; Aristotle's list of categories can be seen in Chapter VIII, and there are others. Wood's list, however, is a representative one; (1) existence; (2) non-existence; (3) possibility; (4) impossibility; (5) necessity; (6) quality; (7) relation; (8) resemblance; (9) qualitative difference; (10) qualitative identity; (11) numerical identity; (12) numerical distinctness; (13) structure or organization; (14) individuality or individual identity. All of these are a posteriori universals in that they are abstracted from the particular objects and therefore are contingent on the existence of the particulars. In short, they are empirically derived.⁴⁷

Formal knowledge or a priori knowledge is conceptual knowledge which is non-factual knowledge. If there is no knowledge without interpretation--in all of these areas there are interpretative elements--, and interpretation is always subject to the check of further experience, how is knowledge possible at all? It seems to be possible only if some knowledge is a priori; "there must be some propositions the truth of which is necessary and is independent of the parti-

46 Wood. op. cit., p. 145 and p. 148 respectively.

47 Cf. ibid., pp. 144-183.

cular character of future experience."⁴⁸ Wood defines formal knowledge as "a non-factual proposition, basic to a system of propositions either because it serves as a first premise of the system or as a rule conformable to which the system is elaborated."⁴⁹ However, the modern view of the a priori is somewhat different than the traditional view. It is underived in the following sense: "The conception of a principle as primum inter pares has replaced the conception of the principle as in absolute logical prius."⁵⁰ Thus, they are either first premises in the sense of the actual constituents of a system (constructive premises) or basic assumptions as governing a system without being a part of the system (regulative premises). A priori knowledge is non-factual in that it is neither "a description of a concrete factual situation nor an inductive generalization from a number of concrete descriptions."⁵¹ The four general theories of the a priori are as follows: (1) the intrinsic a priori theory which maintains that a priori principles are self-evident truths; (2) the affirmation by attempted denial

⁴⁸ Lewis. op. cit., p. 196.

⁴⁹ Wood. op. cit., p. 184.

⁵⁰ Ibid., p. 185.

⁵¹ Ibid., p. 187.

theory; (3) the presuppositional theory which maintains that a priori principles are truths presupposed by the possibility of experience; and (4) the theory already mentioned, the⁵² modern postulational theory.

One last type of conceptual cognition is not ordinarily included in epistemological discussions probably because it does not include cognition of an object so much as judgment as to whether a thing already cognized is true or false, good or bad, beautiful or ugly, etc. However, it is an abstract⁵³ interpretative function.

In concluding this discussion of the areas of knowledge, it should be pointed out that no cognizance has been given to such supposed mental apprehensions of reality as the immediate experience of mysticism and intuitionism. Such experience must always be questioned because though its reality to the participant may be certain yet it carries no testable and explainable factors whereby it can be checked and⁵⁴ made known to others.

⁵² Ibid., p. 191. Cf. pp. 191 ff.

⁵³ Cf. Wood. op. cit., pp. 211 ff.

⁵⁴ F. R. Tennant. Philosophical Theology, Volume I, pp. 311 ff.

III. THE ORIGIN AND NATURE OF KNOWLEDGE

A consideration of the various areas in which epistemic awareness exists and in which there is actual knowledge if anywhere leaves one unsure as to the relation between the epistemic object and the ontic object. This section is given over to a broad and undetailed discussion of the various ways in which the epistemological problems are solved.

These problems, which have to do with the relation between the subject and the object and the reality of unreality of that object, are two: How is knowledge acquired? and How is it known to be trustworthy? The first has to do with origins or modes of knowledge; the second, with the nature or validity of knowledge. The first is answered in terms of rationalism or empiricism largely; the second is largely answered in terms of realism or idealism.

William Pepperell Montague lists and discusses six methods of attaining knowledge in the history of thought: (1) authoritarianism depends on testimony; (2) mysticism depends on intuition; (3) rationalism depends on reason; (4) empiricism depends on sense-perception; (5) pragmatism depends on practice; and (6) scepticism depends on doubt. ⁵⁵

⁵⁵ William Pepperell Montague. The Ways of Knowing, p. 233. Cf. pp. 39 ff. for discussion. His plan is to unite all of these in one omnibus method.

There is a sense in which all of these reduce to either an a priori approach (largely rationalism) or an a posteriori approach (largely empiricism). Authoritarianism is dependent upon testimony, but testimony is never an immediate knowledge; it must be interpreted by the mind in a way similar to the cognition of other selves. Mysticism claims immediate knowledge but as soon as intuition claims knowledge-status it becomes interpretative and thus a rationalistic problem. Pragmatism is obviously dependent upon an interpretative certainty as to what workableness consists of and is also dependent upon sense-awareness, at least, of when a thing is working according to the previously defined criteria of workableness. Scepticism is a different type of problem since it is anti-knowledge. However, it is an interpretative function and thus in a sense is a rationalistic judgment against all possibility of knowledge. (More will be said later about scepticism.)

There is, of course, a sense in which empiricism itself reduces to a rationalism when it becomes interpreted experience. But the problem is not so much whether a thing is known by the reason or by the senses as whether all knowledge begins with sense-perception or whether all knowledge does not come by the way of the senses.

Rationalism grants that sensation is the primary and inescapable medium of communication between the subject and

the external world. Sensation provides the raw material from which knowledge is built but true knowledge is not derived through experience alone; it comes to fruition through reason. Rational principles and categories are used to correlate and organize the sense-data. These principles are universal ideas which have real and prior existence.⁵⁶

Paulsen says that rationalism has the stamp of orthodoxy because the great systems of ancient and modern thought have been for the most part rationalistic. Greek philosophy in its great systems, as is seen in the body of this study, differed as to the nature of things but was unanimous in maintaining that truth does not originate with the senses. Heraclitus refuted the testimony of the sense; the Eleatics refuted it even more so. Democritus and Plato were far apart in their ontology but agreed at this epistemological point. Aristotle modified the earlier theories somewhat, but he was rationalistic in his insistence on rational truth. Many of the great systems of modern thought including the systems of Descartes, Hobbes, Spinoza and Leibniz were rationalistic also. Therefore, rationalism has the reputation of being traditional orthodoxy.⁵⁷

⁵⁶ Warren Nelson Nevius. Religion as Experience and Truth, pp. 157-158. Cf. also the discussion in John Grier Hibben. The Problems of Philosophy, pp. 95-97 and Tennant. op. cit., pp. 194 ff. for a critique of rationalism.

⁵⁷ Friedrich Paulsen. Introduction to Philosophy, pp. 378-379.

There are three fundamental forms of rationalism:

- (1) metaphysical rationalism as exemplified in Plato;
- (2) mathematical rationalism as exemplified in Spinoza; and
- (3) formal rationalism as exemplified in Kant. A brief discussion of each type is worthwhile.

Metaphysical rationalism rests on the assumption that reality-in-itself is thought and thus one must truly know reality by pure thought. The soul is in its original essence homogeneous with reality. Sensuous elements and desire corrupt the process of pure thought.⁵⁸

Mathematical rationalism, in its various forms, agrees in insisting on the primacy of mathematical process for all of science. In other words, each science should proceed from axioms which are self-evident and unproved by experience.⁵⁹

Formalistic rationalism is largely a Kantian product. Kant emphasized the power of mind in creating objects and their propositions. This happens in mathematics, for its objects are pure intuitions. The geometrician can describe the properties of his object because he creates the object. This holds true for physics and the natural world also, for in a sense, the subject conditions his concepts of natural

⁵⁸ Ibid., pp. 380-381.

⁵⁹ Ibid., pp. 381-384.

phenomena. If nature is absolutely apart from the knower, there is no a priori knowledge, nor is their a posteriori knowledge, for in either case the natural world must enter into consciousness and become phenomena first. Thus knowledge of things-in-themselves apart from the subject is impossible; knowledge of things, that enter consciousness is known by the a priori concepts which build that phenomena. ⁶⁰

The whole problem boils down to this question, Does one have any a priori (rational) knowledge of objects?

Rationalism answers in the affirmative: By pure thought we reach an absolute knowledge of things that cannot be acquired through the senses. Empiricism denies the statement: We gain a knowledge of objects solely by perception, whence it follows that we have no absolute knowledge. ⁶¹

Empiricism, or sensationalism, therefore, declares that knowledge can only be found through the instruments of the senses. It is literally a feeling aroused by the stimulation of the senses, which feeling is knowledge in that it is a collection and systematizing of these experiences. ⁶²

Empiricism, as here discussed, was largely an English reaction to the mathematical rationalism of the seventeenth

⁶⁰ Ibid., pp. 390-392.

⁶¹ Ibid., pp. 389-390.

⁶² Nevius. op. cit., pp. 156-157.

century. It was an assertion that there are two kinds of sciences which differ in nature and method. Purely conceptual science, like mathematics, may be fashioned after the pattern of rationalism, but there are objective sciences like physics and psychology which differ in content and method and deal with actual objects which exist apart from one's notions. Knowledge of these latter sciences must be derived from experience. Paulsen notes that Hume said that not even the most perfect intellect could have deduced that if one should fall into the water he would sink and suffocate. Such
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knowledge arises from experience.

These empirical reflections began with Locke. He attempted to prove that all notions are derived from experience and that none are innate. All concepts concerning matters of fact are only provisional notions which must constantly change in order to fit facts yielded by further observation.
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Hume, of course, carried this out to an agnostic position by indicating that there is no fact the non-existence of which could not be conceived as logically possible. There is no approach which is closer than probability. The law of

63 Paulsen. op. cit., pp. 384-385.

64 Ibid., pp. 386-387.

causality is no exception although the principles of mathematics are necessarily universal.⁶⁵

The next problem which epistemology attempts to solve is the problem of the validity or nature of knowledge. The terms realism and idealism have both been introduced already in this connection. However, there are two more terms which require consideration. These are epistemological monism and epistemological dualism. These terms indicate some vital distinctions though they seem on the surface only to be slightly different from realism and idealism. Macintosh gives the following definitions of all four terms:

Epistemological monism is the doctrine that the experienced object and the real object are, at the moment of perception, numerically one. Epistemological dualism is the doctrine that the experienced object and the real object are, at the moment of perception, numerically two. Epistemological realism is the doctrine that the real object can exist at other moments than the moment of perception, or of any other conscious experience, and independently of any such experience. Epistemological idealism is the doctrine that the real object cannot exist at other moments than the moment of perception, or of some other conscious experience, nor independently of such experience.⁶⁶

⁶⁵ Ibid., pp. 387-389. Cf. Tennant. op. cit., for his justification of a broad empiricism which is not limited to the sense-experience but includes the total experience of a man, pp. 215 ff. For a review of empiricism in the sense here discussed, cf. Hibben. op. cit., pp. 97 ff. Another type of empiricism is the positivism of Comte, cf. Hibben. op. cit., pp. 100 f.

⁶⁶ Macintosh. op. cit., p. 13.

Thus there is the possibility of a four-fold combination of theories, for both monism and dualism may be (theoretically, at least) either realistic or idealistic.⁶⁷ The possible combinations are as follows: (1) realistic monism with C equal to O but O existing outside the mind; (2) realistic dualism with C not equal to O but O existing outside the mind; (3) idealistic monism with C equal to O but O existing in the mind; and (4) idealistic dualism with C not equal to O but O existing in the mind. It should be also noted that there is the possibility of a combination of monistic and dualistic features in the same general theory. Wood suggests, for instance, the possibility of a combination of an intuition-⁶⁸al (monistic) theory of conceptual knowledge with a representative (dualistic) theory of perception.

For all practical purposes there are only three usable theories. An idealistic dualism is difficult to imagine since both the object and the content would exist in the mind and yet not be identical. However, realistic monism (objectivism) is a respectable historical theory as is idealistic monism (subjectivism). Also, especially in modern days, realis-

⁶⁷ Cf. Ledger Wood. "Epistemological Idealism", "Epistemological Realism", "Epistemological Monism", and "Dualism in epistemology". The Dictionary of Philosophy. (Dagobert D. Runes, editor), pp. 84 and 93.

⁶⁸ Ledger Wood. The Analysis of Knowledge, p. 22.

tic dualism (critical realism) is an outstanding theory.⁶⁹

There is one more epistemological attitude (if not a method) that merits discussion. Scepticism asserts that a person cannot know. Paulsen suggests that very few complete sceptics exist. There is less complete denial than an emphasizing of the limits and areas of uncertainty.⁷⁰ Even Hume never embraced a complete scepticism but a scepticism of universals only. If pure scepticism were carried out, it would lead to what Hocking calls "an ideal poise, indifference, and practical uselessness such as no living man has ever attained".⁷¹ He says further that a complete scepticism is impossible.

The effort to doubt everything thus leads to the discovery that there is something which cannot be doubted: a perfectly universal scepticism is impossible. The criticism of reason must recognize a sphere in which reason is successful, and mark it off from other spheres in which it works badly, or perhaps necessarily fails.⁷²

⁶⁹ Cf. Montague. op. cit., pp. 235 ff. and Hibben. op. cit., pp. 101 ff. A strict idealistic monistic view results in the absolute idealism of Fichte, for instance, but Kant held a half-way position with his phenomenology. He said that objects exist outside the mind but they only are known when they enter consciousness and then only known relatively since the mind creatively interprets what enters consciousness. Cf. Tennant. op. cit., pp. 219 ff. and Paulsen. op. cit., pp. 344-351.

⁷⁰ Paulsen. op. cit., pp. 342-343.

⁷¹ Hocking. op. cit., p. 128.

⁷² Ibid., p. 131. Cf. Montague. op. cit., pp. 173 ff. on Scepticism.

IV. KNOWLEDGE AND FAITH

According to the definition of knowledge in Chapter I, there is more than an awareness of an object involved in knowing. There are also certain tests for indicating the validity of knowledge incorporated in the definition. Thus, there is a constant calculation process involved in any serious attempt at knowing. Basically real knowledge is truth.

Truth is defined by C. S. Peirce, says Dewey, as: "The opinion which is fated to be ultimately agreed to by all who investigate is what we mean by truth, and the object represented by this opinion is the real."⁷³ This is obviously a pragmatic approach but it is at least indicative.

There are several tests for truth such as authority, mystic insight, correspondence, self-evidence, and coherence. There is not time to discuss all of these. It is felt, along with Blanshard, that coherence is the best test of truth and that the other five borrow from it.⁷⁴ Brightman's discussion of verification by coherence is especially helpful:

Coherence is essentially the method of verification described earlier in this chapter. To restate it: according to the criterion of coherence, a proposition is to be treated as true if (1) it is self-consistent,

⁷³ Cf. Dewey. op. cit., p. 345, footnote 6.

⁷⁴ Blanshard. op. cit., p. 259. Cf. pp. 212 ff.

(2) it is consistent with all of the known facts of experience, (3) it is consistent with all other propositions held as true by the mind that is applying this criterion, (4) it establishes explanatory and interpretative relations between various parts of experience, (5) these relations include all known aspects of experience and all known problems about experience in its details and as a whole. It is to be noted that coherence is more than mere consistency; the latter is absence of contradiction, whereas the former requires the presence of the empirical relations mentioned under points (4) and (5); thus consistency is necessary to coherence, but consistency is not sufficient.⁷⁵

It is evident that a vast valuational problem is involved in relating one's epistemic objects to reality. Practically, it is no large problem at all, but epistemologically it is nearly unsolvable. It is a fact that, practically, men live on assuming that they are constantly in contact with reality and are forced by the exigencies of life itself to do so. This fact undoubtedly gives rise to the existential philosophies which are so prevalent today, especially on the continent. There seems, therefore, to prevail a certainty which is not always complete knowledge. It is these extra-rational certainties which are called, in this paper, faith-ventures. Belief or faith is a form of certainty which is not absolute in the sense of being completely coercive but requires a total movement of the personality to a position which is felt to be secure on the basis.

⁷⁵ Edgar Sheffield Brightman. A Philosophical of Religion, p. 128.

of what evidence is available although this certainty is not demonstrably knowledge-certainty. It is the contention of this paper that Greek philosophy, at least, is undergirded with such a faith-venture and that such a venture is to be found at some of the most crucial places in these philosophic systems.

Hocking gives an interesting definition of philosophy as the sum of a man's beliefs and then goes on to define what he means by belief:

We mean by a man's beliefs all those judgments, from certainties or convictions at one extreme to mere impressions at the other, upon which he customarily acts.⁷⁶

Such a definition fits what is maintained by this paper, namely, that philosophic systems, at least the systems of the Greeks, are set into a faith matrix.

There are several levels of belief, as is indicated also in Hocking's definition. Faith is the prime movement of philosophy. It is an extra-rational grasp of the universal pattern and the establishment of a man's world-view. For instance, "No one believes and no one can believe that reality is wholly indifferent or even hostile to that which seems to be the highest goal and the good."⁷⁷

⁷⁶ Hocking. op. cit., p. 1.

⁷⁷ Paulsen. op. cit., p. 321. Cf. pp. 313 ff. Cf. also Tennant. op. cit., p. 299.

Not only so, but as has been indicated, knowledge is largely a matter of truth, and thus involves valuational judgment. Belief is an essential aspect of judgment. Cunningham points out that reason is always entertaining beliefs and is always trying these out. The presence of certain beliefs leads reason out into new areas of possible cognition.⁷⁸ They point the way to possible solutions. Macintosh also indicates the role of belief in judgments:

In addition to our verified scientific knowledge of the physical world, there is room for judgments embodying reasonable beliefs about reality. Within reasonable beliefs many degrees of reasonableness may be distinguished, varying from (a) what is almost demonstratively certain knowledge, and (b) belief which is rationally necessary in the sense of being logically involved in what may be regarded, on adequately critical grounds, not only as theoretically permissible but as practically necessary to (c) what is merely rationally permissible, as not contradicting any known fact or anything which may be reasonably regarded as practically necessary.⁷⁹

Belief or faith in the role of judgment also includes the setting of hypotheses. A hypothesis is a live, real possibility which a man establishes by a faith-venture on⁸⁰ the basis of not fully coercive evidence. In fact, William James says that there are times when faith must precede fact

⁷⁸ G. Watts Cunningham. Problems of Philosophy, p. 135.

⁷⁹ Douglas Clyde Macintosh. The Problem of Religious Knowledge, pp. 6-7.

⁸⁰ Cf. William James. The Will to Believe, Etc., p. 2.

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before fact can come at all. There is, therefore, a function of will as well as of intellect in the establishing of hypotheses or the knowing of a new fact.

As both Kroner and Ferre insist, in their splendid books on faith, there must be a cooperate function of faith and reason. The one cannot function without the other. ⁸²

In concluding, it may be important to attempt to justify the use of the term "faith" instead of "belief" in the title of this paper and as the dominant of the two words throughout the paper. The reason is that "faith" is taken, in a broader sense than mere belief or opinion, to specify extra-rational foundations under, and extra-rational ventures throughout, a man's philosophical system. As the theory of knowledge is largely implicit in many of the Greeks, so are these faith-elements. The use of the term "faith" in relation to epistemology is justified by no less a thinker than F. R. Tennant who says:

There is need for the word 'faith' in addition to the word 'belief', though they are often used as synonyms. 'Belief' serves to emphasise the cognitive, and 'faith' to lay stress on the conative, side of experience involving venture. . . .

'Faith' is thus not a word to be confined to the theological vocabulary. Epistemology that would go to the root of its matter, cannot dispense with it. So-called knowledge, our working substitute for 'certain'

⁸¹ Ibid., p. 25.

⁸² Cf. Richard Kroner. The Primacy of Faith, p. viii and pp. 198 ff. and Nels Ferre. Faith and Reason, Appendix A, pp. 217 ff.

knowledge that is not forthcoming, presupposes belief that commands only certitude, though called practical or moral certainty; and the belief that underlies knowledge, is the outcome of faith which ventures beyond apprehension of data to creative ideation or supposal, and justifies its venture by practical actualisation. Analytical and genetic investigations both yield this conclusion. Theoretical propositions were preceded by practical maxims, and learning has issued out of doing: when scrutinised, these propositions are found to involve faith-presuppositions. This does not merely mean that "there is more in life than logic"; it means that there is more in 'knowledge' than logic, and more in reason and reasonableness than ratiocination and rationality. Conation is genetically a source of all knowledge higher than involuntary sense-knowledge. Analytically, induction is found to contain postulation or faith-venture, creative imagination, pursuit of end; and its verification is discovery of applicability, not logical certification of photographic correspondence with Reality. . . . We now see that the category of end enters into the very foundations of the edifice of 'knowledge', as much as do the mathematical and the dynamic categories of Kant.⁸³

⁸³ Tennant. op. cit., pp. 298-299.

PART TWO

FROM THALES TO THE SEMI-SOCRATICS

CHAPTER III

EARLY GREEK THINKERS

It is not the purpose of this paper to trace the influences effecting philosophy, but a few observations by way of introduction are important. By the time Greek cosmological philosophy had begun to appear, especially with Thales and the earlier Ionians, Greek culture and civilization had started to expand. The city-state system had spread into a colonizing venture. The tyrants were ruling in Ionia where Thales and his followers did their work. Athens had not as yet developed her strong political culture under Solon. The famous Greek democracy had not yet been developed, and the Persian Wars had not yet been fought.¹

However, Greece had already seen a great literary period. Both Homer, the aristocrat, and Hesiod, the peasant, had given their literary contributions embodying the basic emphases of the nobility of man and the right to individuality, which came later into philosophical expression. Ionia already had its famous poets also, such as Archilochus, the

¹ For complete discussions of the political movement in the Greek states at this time, cf. J. B. Bury. History of Greece, pp. 1-218, and especially the chronological chart, pp. 837-839; G. W. Botsford and C. A. Robinson, Jr. Hellenic History, pp. 1-111, and especially the chapter on "The Civilization of Archaic Greece" (Chapter VIII), pp. 90-111; and M. L. W. Laistner. A Survey of Ancient History, pp. 118-155.

Satirist, Semonides, and Memnhermus; and Aeolis to the north² had the lyric poets Sappho and Alcaeus.

It is to be noted that the literary movement from Homer to the Ionian and Aeolian poets reveals a change of mood. Thilly says concerning this:

The Homeric cheerfulness and objectivity, characteristic of the naivete of childhood, gradually disappear; the poets become less optimistic, more critical and subjective.³

Early Greek religion reveals this change of mood also. Gilbert Murray feels this period of mythology, which has seemed to be "one of the weakest spots in the armour of those giants of the old world," was actually almost on a par with Greek literature and philosophy.⁴ Religion in early Greece reveals a movement toward subjectivism, which was characteristic of Greek thought as well. Edward Caird feels that Greek anthroporphisms were a mediating stage between objective religious and subjective religions. He says that there were two ways in which this was done: (1) there was a humanizing of the Nature-Powers and (2) there was a substituting of the relation of the deities to nature. He also sees a monotheistic trend in the way Greek art set Fate even over the Gods. The monotheistic idea was

² Cf. Werner Jaeger. Paideia, Volume I, pp. 3-135, and especially Chapter 7, pp. 115-135.

³ Frank Thilly. A History of Philosophy, p. 9.

⁴ Gilbert Murray. Five Stages of Greek Religion, p. 1.

introduced by the Greeks, Herodotus and the Tragedians.⁵ It should be said that Caird bases his study on an evolutionary hypothesis which may or may not be adequate, yet the movement toward subjectivism is distinctly seen in Greek literature and religion. Such a movement opened the avenues of criticism, which came to fruition in Greek philosophy.

The theogonies, which held such important place in the early Greek religion, were the forerunners of philosophy. They were not merely proposed for the purposes of worship, but they were actually attempts to explain the origin of things, not in a scientific way, but with the aid of imagination. Thus, the mythological characters of the Greek pantheon became objects of scrutiny. Their origins were in question. Therefore, the early theogonies, such as the Theogony of Hesiod, are important links with early Greek philosophy.⁶ The theogonies became cosmogonies and cosmologies, which in turn developed into anthropologies. The movement was toward subjectivism and was to result in criticism, until even the ability to know, which was assumed by the earlier thinkers, came under question.

⁵ Edward Caird. The Evolution of Religion, Volume I, Lecture Tenth: "The Religion of Greece", pp. 260-285.

⁶ Thilly. op. cit., pp. 9-11; cf. also Theodor Gomperz. Greek Thinkers, Volume I, pp. 37-42.

I. THE IONIANS

A history of ancient philosophy would spend much time dealing with the theories of the basal stuff of the world and the theories of relation, change, and permanence, which mark the early cosmological speculations, and little consideration would be given to any epistemological developments. There is good reason for this: the earlier Ionian thinkers, Thales, Hippe, Anaximander, Anaximenes, and Diogenes of Apollonia, as well as later cosmologists, had their individual conceptions of the ARXH (beginning). This dominated their thinking; the focus of attention was the objective natural world.

Thales of Miletus (c. 600 B. C.) was the father of the Ionian school. For him, water is the first principle, according to Aristotle. (Thales did no writing himself.)⁷ Hippe of Samos, a later philosopher, also regarded water as a first principle.⁸ Anaximander, a fellow-countryman of Thales, wrote On Nature, in which he proposed that the ARXH is not water, but the atmosphere (τὸ ἄπειρον), or "the boundless".⁹ Air, or breath (ἄηρ, πνεῦμα, ψυχή) are the generative princi-

⁷ John Burnet. Greek Philosophy, Part I: Thales to Plato, pp. 20-21; Aristotle. Metaphysics. I.3.983b19-27. (Richard McKeon, editor. The Basic Works of Aristotle, p. 694.)

⁸ Friedrich Ueberweg. A History of Philosophy, Volume I, p. 32.

⁹ Charles M. Bakewell. Source Book in Ancient Philosophy, pp. 3-6; Alfred Weber. History of Philosophy, pp. 9-10.

ples of all things for Anaximenes (c. 550 B. C.).¹⁰ Diogenes of Apollonia, living in the fifth century, agreed in general¹¹ with Anaximenes.

To say that the Ionian cosmologists developed no epistemological systems, is not to say that there were no valuable latent epistemological assumptions. On the contrary, there was an important assertion of dependence upon knowledge as being adequate to find the source of everything. This was not questioned. The fact is that Thales' important contribution is not his water-philosophy, but, as Thilly says, his importance lies "in his having put the philosophical question squarely and in having answered it without reference to mythical beings".¹² Wilhelm Windelband says:

The question, what things really are, or what is the intrinsic nature of things, which is already contained in the Milesian conception of the ἀρχή, presupposes that the current, original and naive mode of thinking of the world has been shaken, although this presupposition has not come to clear recognition in consciousness. The question proves that reflective thought is no longer satisfied with the ideas which it finds current, and that it seeks truth behind or above them.¹³

This assertion of philosophic freedom wiped out much of

¹⁰ Bakewell. op. cit., pp. 7-8; Weber. op. cit., p. 10.

¹¹ Ueberweg. op. cit., pp. 37-38.

¹² Thilly. op. cit., p. 16.

¹³ Wilhelm Windelband. A History of Philosophy, p. 58.

the superstitious beliefs of that day. Gomperz considers this as one of the two effects of this philosophy: "The conception of the universe as a playground of innumerable capricious and counteracting manifestations of Will was more and more undermined."¹⁴ The attention was turned to nature alone; cosmogony began freeing itself from theogony. This fact indicates the epistemological direction of the Ionians. The fact that the world did not need the gods to explain it, though the gods were kept around, means that there was a trust in the power of man to explain it without external help. This, it is noted, is a faith-venture. It probably was some sort of reaction from the stark superstition of the earlier period and an answer to the quest for more certainty than these superstitions allowed.

Epistemologically, this trust in the ability of man to find the basic principle of all things existed in the form of uncritical rational realism (or sensationalism), which was an advance over the uncritical empirical realism of the previous thought. However, as Grote points out, there was a realization of the great disparity between questions to be solved and means of solution, which arose even among the Ionians, and which became a characteristic of Greek philosophy in general.¹⁵ He calls it "the antagonistic force of suspensive scept-

¹⁴ Gomperz. op. cit., p. 44.

¹⁵ B. F. Cocker. Christianity and Greek Philosophy, pp. 280-282; George Grote. A History of Greece, Volume V, p. 91.

ticism".

The point of faith in the Ionian speculation was the assumption that there is a unity to all things.¹⁶ Along with this was the feeling that the natural world, as seen by the senses and interpreted by reason, would give the indication where that unity lay. Thus, though things are as they seem, the origin of those things is not obvious to the senses without speculation.

II. THE PYTHAGOREANS

The question soon arose, and was investigated throughout Greek thought, concerning the reliability of the senses. The Pythagoreans moved away from this uncritical rational realism to a mathematical type of rational realism, which is an abstraction from sense-experience.¹⁷

Pythagoras is said to have been a pupil of Anaximander and a contemporary with Anaximenes. In general, he seems to have built upon the philosophy of Anaximander. (It is difficult to find Pythagoras' philosophy as distinct from the philosophy of his followers, nor is it important, for this study,

¹⁶ Gomperz. op. cit., p. 46.

¹⁷ Cocker. op. cit., p. 282. Cocker's use of the term "idealism" to describe Pythagoreanism does not seem to have the same epistemological content as the term as it is used in this paper. It refers to a priori concepts as against a posteriori perceptions (sensationalism) instead of the meaning given for the term in this study. Cf. Chapter II.

that it should be done.) The Pythagoreans seem to have adopted the doctrine of the Unlimited or Boundless from Anaximander but placed with it another Eternal principle, the Limited. Here was a definite dualism. As Fuller says, in explaining this:

It is only through the action of this Principle upon the Unlimited that the intermindable vacancy and monotony of the latter can be broken up, and mapped, and plotted, and specified out into a world of separate, distinct, individual things, each fenced within the bounds of its particular and specific self. The world, then, is the result of the interaction of these two factors. In a word, the Universe is a measuring out of off of the Unlimited by the Limited.¹⁸

Everything is made up of different proportions of these two elements harmoniously mixed. There are other elements which have their opposites and are mixed in also, but the two mentioned are eternal principles. It is easy to see how the Pythagoreans got their number-philosophy from this arrangement. Their mathematics enabled them to see relationships in terms of numbers. These relations were given ontic significance¹⁹ in the form of number. It may be that the most devastating criticism of the Pythagoreans may come at this point, that they identified form and essence. At least, they postulated number, mathematical definiteness, as the principle of all

¹⁸ B. A. G. Fuller. History of Greek Philosophy, Thales to Democritus, pp. 106-107.

¹⁹ Thilly. op. cit., pp. 18-19.

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things.

It should also be noted that much important scientific, mathematical, and astronomical activity can be found among the Pythagoreans, which were all mixed in with a curious type of religious mysticism, akin to and perhaps drawing from Orphism, including a doctrine of transmigration of the soul.²¹ As Jaeger suggests, this mysticism and Orphism seem to have been mere importations from outside the field of philosophy.²²

In all of this highly complicated system of the Pythagoreans, there is a carrying on of the assumption, which Windelband says is characteristic of Pre-Sophist Greek thought, that rationalism provides an adequate theory of knowledge.²³ It is, however, clear that there was a departure from the physical realism of the earlier Ionian speculations. There was the same fundamental faith "that beneath the fleeting forms and successive changes of the universe there is some permanent principle of unity",²⁴ but whereas the Ionians had sought for

²⁰ For a complete discussion of the Pythagoreans, cf. Burnet. op. cit., Chapter II, pp. 37-56; Gomperz. op. cit. Chapters III-V, pp. 99-152. For two shorter reviews, cf. W. T. Stace. A Critical History of Greek Philosophy, Chapter III, pp. 31-39; and Arthur Kenyon Rogers. A Student's History of Philosophy, pp. 14-22.

²¹ Cf. Gomperz. op. cit., Chapter V, pp. 123-152.

²² Jaeger. op. cit., pp. 165-166.

²³ Windelband. op. cit., p. 60.

²⁴ Cocker. op. cit., p. 296.

this unity in some common physical element, the Pythagoreans sought it in mathematical relations. This was abstraction on a higher level than was found among the Ionians. Albert Schwegler says:

The Ionic philosophy, as we have seen, developed a tendency to abstract from the immediately give, individual quality of matter. We have the same abstraction, but on a higher stage, when the sensuous concretion of matter in general is looked away from; when attention is turned no longer to the qualitative character of matter, as water, air, etc., but to its quantitative character, its quantitative measure and relations; when reflection is directed, not to the material, but to the form and order of things as they exist in space. But the specific nature of quantity is wholly expressed in numbers, or, as we may term it, in the cipher. Now this is the principle and the position of the Pythagoreans.²⁵

Therefore, this seems to be a mathematical rational realism. Cocker lists it as a mathematical rationalism as well as being idealistic, but as pointed out earlier, his term "idealism" has a different meaning than the opposite of realism.²⁶ At least, it was a more advanced rationalism.

Whereas the Ionians assumed a naive type of rationalism, not completely unmixed with empirical elements, the Pythagoreans had a purer type of rationalism. Turner suggests that this abstraction from sense-experience made way for a higher abstraction, which found its expression in terms of Being.

²⁵ Albert Schwegler. Handbook of the History of Philosophy, p. 11.

²⁶ Cocker. op. cit., p. 282. Cf. footnote 17 of this chapter

These theories of Being versus Becoming, Permanence versus Change, are now discussed.²⁷

III. HERACLITUS AND THE ELEATICS

Heraclitus of Ephesus (535-475 B. C., according to²⁸ Thilly) passed an interesting judgment upon Pythagoras. In one of his fragments, he said:

Pythagoras the son of Mnesarchus pursued his investigations further than all other men. . . he made himself a wisdom of his own,--much learning, bad science.²⁹

The "true science", for Heraclitus, was the philosophy that maintained "Change" or "Becoming" as the basic principle of the universe. A characteristic expression, though it cannot be proved to be his own, is: "All things flow; nothing abides". Another expression, which is probably his, indicates his philosophy: "One cannot step twice into the same river".³⁰ This ceaseless change is illustrated by fire.

Yet in the midst of this change there is one thing which persists, and that is the reason, or logos, in all things. Fragment 31 says:

The transformations of fire are, first of all, sea; and one-half of the sea is earth and half the stormy wind. . .

²⁷ William Turner. History of Philosophy, p. 44. For a discussion of Mathematical or Pythagorean Rationalism, cf. William Pepperell Montague. The Ways of Knowing, pp. 113-117.

²⁸ Thilly. op. cit., p. 23.

²⁹ Bakewell. op. cit., p. 35.

³⁰ Ibid., p. 33.

The sea is dispersed and keeps its measure according to the same Word Logos that prevailed before it became earth.³¹

Fragment 41 uses the term "Wisdom" for "Word": "Wisdom is one thing. It is to know the thought by which all things through³² all are guided." This reason is superior to sense-experience. The senses cannot be trusted; what seems to be permanent is not. "That is, perception without reflection does not reveal³³ to us the hidden truth, which can be found only by reason."

This seems to be a reversion from metaphysical dualism back to the monism of the Ionian thinkers. There are not two world-principles, but one. This change is not of the nature of two intermixed principles at work in all things, for nothing can be sub-divided to the point where one particular thing can be called one thing and another thing be called something else. Change does not mean a succession of different occurrences or things, but a continuation of the new from the old. Thus opposites are really identical, and a strict dualism collapses³⁴ in Heraclitus' system.

The fact that Heraclitus postulated the basis of the universe as the rational principle of change brings to light his basic faith that there is an ultimate principle and that

³¹ Ibid., p. 30.

³² Loc. cit.

³³ Thilly. op. cit., p. 25.

³⁴ For good discussions of Heraclitus' philosophy, cf. Fuller. op. cit., Chapter V, pp. 118-142; Burnet. op. cit. Chapter III (in part), pp. 57-63; Stace. op. cit., Chapter V, pp. 72-80; Gomperz. op. cit., pp. 59-79.

that principle is change itself. Continual becoming follows a reasonable pattern. Thus the problem of the One and the Many becomes resolved to the point where the One is the Many and the Many the One. This philosophy was carried to its further extremes by Cratylus of Athens, the disciple of Heraclitus³⁵ and a teacher of Plato.

Heraclitus' philosophy reveals his faith that the universal principle is immanent in the world of individuality and change. That there was such an a priori principle in his thinking, immediately shows Heraclitus to have been a rationalist. The question now is, was he a rational realist, as the early Ionian and Pythagorean philosophers seem to have been, or was he a rational idealist? From Cocker's discussion, he seems to be willing to classify him in the former group,³⁶ yet his evident distrust of sense-experience would cause a doubt. It is true that one can see germs of phenomenalism here, yet it should be pointed out that it was not a complete distrust of the senses that Heraclitus maintained. It was a distrust of the experience which the senses give without any rational interpretation, but there was no distrust of the senses as being able to give a one-to-one report of the sensate object. The problem is explained in the fact that Heraclitus was here expressing his faith in rationalism. Thus it seems to be correct to call Heraclitus a

³⁵ Ueberweg. op. cit., p. 39.

³⁶ Cocker. op. cit., pp. 282 ff.

rational realist.

One more thing should be noted briefly concerning the epistemological assumptions of Heraclitus: within his philosophy were the seeds of a later empiricism and phenomenism. His theories already implied the concept that things cannot be known except as they are known in the mind, as can be seen in his distrust of the sense-experiences. This was later to come into full fruition in the Idealism (Phenomenism) of Kant. Heraclitus' absolute evolutionism also implied an empiricism, which, though not explicit in his own philosophy, was later to become explicit in the writings of the British Empiricists. Perhaps this latter trend was not as prominent as the former one, for Windelband considers all of the pre-³⁷Sophists to be rationalists.

With the speculations of the Eleatic school in southern Italy, there was a reaction to Pythagorean and Heraclitian thinking. Four men made up the main thinkers of this school; Xenophanes, the probable founder, was the theologian of the group; Parmenides, perhaps the most prominent of the four, was the metaphysician; and Zeno and Melissus were the dialecticians. Xenophanes presented the fundamental thoughts but

³⁷ Windelband. op. cit., p. 60. For discussions concerning these elements in Heraclitus' thought, cf. Gompers. op. cit., pp. 78-79; and Fernand Van Steenberghen. Epistemology, p. 53.

in theological form when he attacked the prevailing polytheism with its anthropomorphisms. He proclaimed the unity and changelessness of God. Parmenides developed this into a system, while Zeno and Melissus defended the doctrine.³⁸

In Parmenides' poem On Nature there is this clear statement of the doctrine of being, which was proposed against the doctrine of Heraclitus:

Listen, and I will instruct thee--and thou, when thou
 hearest, shalt ponder--
 What are the sole two paths of research that are open to
 thinking.
 One path is: That Being doth be, and Non-Being is not:
 This is the way of Conviction, for Truth follows hard in
 her footsteps.
 Th'other path is: That Being is not, and Non-Being must
 be;
 This one, I tell thee in truth, is an all-incredible path-
 way.
 For thou never canst know what is not (for none can
 conceive it),
 Nor canst thou give it expression, for one thing are
 Thinking and Being.³⁹

Thus Parmenides asserted that Heraclitus' law of the identity of the opposites was a flouting of logical law. A thing either exists or it does not; there is no half-way idea of becoming. As Fuller expresses it: "Existence as such has no degrees or
⁴⁰
 variety". A thing either is or is not as the Principle of Non-Contradiction indicates. Parmenides carried his argument to the place where he said that both time and change or variety

³⁸ Thilly. op. cit., pp. 29-30.

³⁹ Bakewell. op. cit., p. 13.

⁴⁰ Fuller. op. cit., p. 148.

are not real. Thus, all objects are the same to the point that they exist and are real. One can actually speak of a sphere of Being. Fuller, again, says:

Reality is for him a globe of absolutely solid, continuous, homogeneous, transparent stuff, wholly devoid of cracks and flaws or iridescent play of qualities. And we might represent the dream world of our experience, of variety and multiplicity, change and motion, as optical illusion we have of something flickering and stirring and reflecting rainbow lights in its rigid, colorless, and motionless depths.⁴¹

Being can be considered a sphere because of the equal, even, and undifferentiated character that it has.

The same general metaphysics was defended by Zeno against the Pythagorean argument that reality is made up of a number of units. Melissus also agreed with Parmenides except that he made the real as infinite instead of a finite sphere, but even he maintained the corporeality of the real.⁴²

It is clear that this philosophy was a movement into a higher abstract metaphysics, and the result was a strict mon-⁴³ism, but whereas Heraclitus did not trust the senses because they give the illusory appearance of the permanence of things, Parmenides did not trust them because they would persuade one that there is truth in change and motion. Both men were con-

⁴¹ Ibid., p. 150.

⁴² Burnet. op. cit., pp. 82-86. For a more complete review of the doctrines of these men, cf. Gomperz. op. cit., Chapters I-III of Book II, pp. 155-207; Fuller. op. cit., Chapter VI, pp. 143-179; Stace. op. cit., Chapter IV, p. 40-71.

⁴³ Schwegler. op. cit., p. 15.

fronted with what they regarded as real and what they regarded as illusion. It is not difficult to fit such an idea into Heraclitus' philosophy, for a metaphysics of change makes it possible for false ideas to arise, but the difficulty which Parmenides faces lies in trying to account for the source of illusion if a one-world setup. Windelband says: "The search could be only among individual things and their changing activities, which were themselves declared to be illusion, non-existent"⁴⁴. According to Ueberweg, the existence of a realm of mere appearance is wholly incompatible with Parmenides⁴⁵ fundamental principle.

Thus, the world, for the Eleatics, is a maze of contradictions. Only in reason can the unity be found that was so desired by the Greeks. Parmenides was the first one to separate Being from Becoming, the One from the Many, the Essence from the Form. This was to come to full fruition in Plato, but the beginning of abstract metaphysics lies with Parmenides,⁴⁶ primarily. It was an abstraction beyond that of the Pythagoreans with their mathematical metaphysics, and it was certainly an abstraction beyond the Ionian thinkers and Heracli-

⁴⁴ Windelband. op. cit., p. 59.

⁴⁵ Ueberweg. op. cit., p. 57.

⁴⁶ Cf. Horatio W. Dresser. History of Ancient and Medieval Philosophy, p. 46.

tus, who found the universal principle in the world of things. With the Eleatics, there was an emphasis on pure thought. Jaeger says, "The compulsion of pure thought is the great discovery on which the philosophy of Parmenides is centred." Again, he says, "Every line he wrote pulsates with his ardent faith in the newly discovered powers of pure reason".⁴⁷ This was certainly rationalism and the complete distrust of finding the world of sense with an emphasis on the a priori ideas of unity or Being might indicate an idealism. Cocker calls it idealism,⁴⁸ but his use of the term has been questioned. In his emphasis on the a priori concepts of logic and reason, Parmenides was certainly idealistic as Cocker denominates him, but in his trust in the concepts of the mind as giving genuine knowledge of the true objective world, Parmenides was clearly a realist of the same type as was Plato. Thus as far as epistemology goes, the Eleatics can correctly be called rational realists.

IV. THE PLURALISTS

It is clear, from the opposing theories already discussed that the problem was far from solved. The thinkers that followed attempted a balance between the ideas of per-

⁴⁷ Jaeger. op. cit., pp. 175 and 177 respectively. Cf. also Johann Eduard Erdman. A History of Philosophy, Volume I, p. 41.

⁴⁸ Cocker. op. cit., p. 282 and pp. 305 ff.

manence and change. Both ideas seemed to be obvious. Thus Empedocles, Anaxagoras and others agreed with Leucippus and Democritus, the Atomists, that absolute change is impossible,⁴⁹ but that there is such a thing as relative change. There was some difference among them as to the nature and action of reality. They agreed that if change be admitted then reality must be plural.

Empedocles agreed with the Eleatics that things cannot originate and decay, but change comes by mingling and separating the basic elements. These basic elements are earth, air, fire, and water. They are underived and unchangeable and fill all things. He postulated two mythical beings, Love and Hate (or Strife), as causing this mixing or separating of the elements. Love causes a mixing; Hate causes a separating.⁵⁰ Thus the hylozoism of the earlier natural philosophers was superseded by a principle which divides the moving cause from the matter.⁵¹

Anaxagoras differed slightly from Empedocles by saying that instead of four ultimates there are an infinite number of them, and instead of a two-fold principle of Love and Hate, which initiates change, he postulated a single intelligent

⁴⁹ Thilly. op. cit., pp. 30-31.

⁵⁰ Ibid., pp. 31-33.

⁵¹ Ueberweg. op. cit., p. 60. Cf. also Bakewell. op. cit., pp. 43-46.

principle, a mind ($\nu\acute{o}\nu\varsigma$) and divided matter from mind.⁵²

Much of the evidence concerning these thinkers comes from Aristotle. He drew the distinctions between Empedocles and Anaxagoras, which have been made above, but he made no distinction between the thoughts of Leucippus and Democritus.⁵³ They explained things the same way and by the same arguments. Both agreed that absolute change is impossible; they accepted the idea of original and changeless particles of reality. They denied, however, the qualities ascribed to them by Empedocles and Anaxagoras and rejected the idea that they move from without by the action of gods or mind. Reality is made up of simple invisible and indivisible spatial units (atoms). These differ only as to size, weight and form, and they have an inherent motion of their own.⁵⁴

The problem now is to find the theories of knowledge

⁵² Thilly. op. cit., pp. 33-36; and S. E. Frost, Jr. The Basic Teachings of the Great Philosophers, p. 258. This is probably the first introduction of this term into Greek thought as a distinct feature of a formal philosophy.

⁵³ Aristotle. On Generation and Corruption. 314a1 ff. (Richard McKeon. The Basic Works of Aristotle, pp. 470 ff.). The references from Aristotle are only a close approximation throughout this paper.

⁵⁴ Thilly. op. cit., pp. 36-40; Edward Zeller. Outlines of the History of Greek Philosophy, pp. 79-80. For more complete reviews of the metaphysics of Empedocles, Anaxagoras, and the Atomists, cf. Fuller. op. cit., Chapter VII, pp. 180-254; Gomperz. op. cit., Book II, Chapters IV-V, pp. 208-254; Book III, Chapter II, pp. 316-369.

that were implicit or explicit in the thinking of these men who closed the cosmological period of Greek philosophy. Empedocles' epistemology must be found in connection with his theory of the elements. Man is made of the same elements as the rest of the universe is and he knows the universe because like knows like. This knowing is sensate in that the water in the eye, for instance, is attracted by the water in the object perceived. He said:

For with earth we perceive earth, with water, water, with air, the air divine, and with fire, the devouring fire, and love we perceive by means of love, hate by means of dismal hate.⁵⁵

Gomperz suggest that here is an attempt to explain perception by intermediate processes. It was crude and fanciful enough, but the subjective factor here recognized was to come to fuller consideration.⁵⁶ Such a mechanical arrangement between subject and object could hardly be interpreted in any other terms than that of a realism, for there seems to be a one-to-one contact which would seem to admit no room for error. It is clear that Empedocles maintained the necessity for a rational interpretation of the perceptual experience. His theory of the four elements, with the two controlling principles, indicates this. Therefore, one is undoubtedly justified in considering Emped-

⁵⁵ Bakewell. op. cit., p. 46. Cf. also Gomperz. op. cit., pp. 234-236, and Frost. op. cit., p. 278.

⁵⁶ Gomperz. op. cit., pp. 235-236.

ocles as having emphasized a rational realism of a more mechanical type, as set over against the rational realism of the earlier Ionians and Heraclitus, which was a dynamic type. The difference between the latter and the former is that the universe was considered to be alive in the latter, while the universe is moved by some outside power or by some inherent mutual affinity in the former theory.⁵⁷

Another mechanical view was held by the Atomists. They can also be considered as rational realists. Leucippus, according to Gomperz, bridged the gap between the world of substances and the world of phenomena. He thus rejected the idea that the world of phenomena is a delusion. This was his distinctive contribution and it was based on his philosophy that all things are made up of atoms, including man with his perceptual powers. However, he went about to prove this by means of a priori reasoning.⁵⁸

Democritus was probably the author of the detailed atomist theory of knowledge, which gave a purely mechanical account of sensation. (It was, however, probably an enlarging of the views of Leucippus.) The soul is composed of atoms and, thus, sensation must be the impact of the atoms from

⁵⁷ Cocker distinguishes between these two principles in op. cit., p. 281.

⁵⁸ Gomperz. op. cit., pp. 348-353.

without upon the atoms within. However, the phenomena produced by this impact may not be exactly like the object as it exists in itself. The air through which the atoms pass can distort the image. Thus one cannot know anything for sure through the senses. One person's sense of taste might declare a certain thing to be sweet, while another person's taste might declare it to be bitter. By such an assertion, it could be thought that Democritus swept out the testimony of sense-experience and resorted to the realm of pure Being with Parmenides. This was not the case. In arguing against Protagoras,⁵⁹ Democritus rejected the scepticism of his opponent by urging that there are two types of knowledge, true knowledge and obscure knowledge. To the latter belong sense-experience. Yet with its obscurities, the latter is of the same nature as the former, which sees within the true nature of things.

Gomperz says:

The reproach that he levelled at the senses collectively was that their evidence did not extend far enough; that they deserted us at the point where the minutest bodies and the most delicate processes were to be got at, from which the material masses and the processes obtaining in them are composed.⁶⁰

This statement can be substantiated by a fragment from Democritus himself:

⁵⁹ For a discussion of Protagoras, cf. Section III of this chapter.

⁶⁰ Gomperz. op. cit., pp. 361-362.

There are two forms of knowledge, on genuine, one obscure. To the obscure belong all of the following: sight, hearing, smell, taste, feeling. The other form is the genuine, and is quite distinct from this.

He then continued by showing what that distinction is.

Whenever the obscure has reached the minimum sensible of hearing, smell, taste, and touch, and when the investigation must be carried farther into that which is still finer, then arises the genuine way of knowing, which has a finer organ of thought.⁶¹

It is now clear that what seemed to be a resorting to idealism, which could have undermined his own materialistic system, was not a rejection of realism but a firm assertion of rationalism. One is thus justified in calling Democritus a rational realist, along with Leucippus.⁶²

Anaxagoras has been purposely left to this point, for he marked a tradition between cosmological thought and the thought of the later period. He was the first Athenian philosopher and, though a pluralist, he seems to have been the first to maintain the independent significance of mind as a factor in the order of nature.⁶³ From this point, the emphasis changed from an investigation of the basis of the universe to more of an investigation of the purpose in the universe.⁶⁴ Anaxagoras was not, however, an idealist. Gomperz says that he probably

⁶¹ Bakewell. op. cit., pp. 59-60

⁶² Cf. Cocker. op. cit., pp. 291-294; Burnet. op. cit., pp. 196-199; Gomperz. op. cit., pp. 361-363; Frost. op. cit., p. 278; John M. Warbeke. The Searching Mind of Greece, p. 108.

⁶³ Warbeke. op. cit., pp. 109-110.

⁶⁴ Loc. cit.

regarded the senses as truthful but weak.⁶⁵ Anaxagoras himself
 said in one of his fragments: "Because of the weakness of our
 senses we are unable to discern the truth."⁶⁶ However, he main-
 tained a theory of sense-perception similar to Empedocles ex-
 cept that he felt that the relation between subject and object
 was more of an attraction of unlike rather than of like for like.⁶⁷
 Therefore, it seems correct to call Anaxagoras a rational realist.⁶⁸

V. CONCLUSIONS

In conclusion, it can be seen that the most obvious epis-
 temological attitude running through all of these thinkers was
 the insistence that there is a contrast between experience and
 reflection, between perceiving and thinking, between opinion
 and reason. The main thing which distinguished these men from
 common men was the maintainance of a critical rational view
 of the world in contrast to the common naive empirical view
 of the world. Thus the rationalism of these men was distinc-
 tive. This was largely assumed and can be seen, for the most
 part, only as it shone through their metaphysics.

However, this rationalism, which was assumed by these
 thinkers, was based in turn on another three-fold assumption,
 or faith. This faith shone through all of their thinking.

⁶⁵ Gomperz. op. cit., p. 223.

⁶⁶ Bakewell. op. cit., p. 53.

⁶⁷ Ibid., p. 54, relates Theophrastus' judgment.

⁶⁸ Cocker. op. cit., pp. 295 and 311-314.

It was the belief (1) that there is a unity to the universe; (2) that this unity of the universe is maintained by fixed laws, and (3) that this unity can be known by man's reason without the help of the gods.

That man can know the unity of the universe by reason was basic to all of the thinking of these men, but there was some divergence as to whether reason alone could know this unity. The Ionians, Heraclitus, Empedocles, Anaxagoras, and the Atomists all agreed in substance that sense-data is the basal stuff of the knowing process. However, they all insisted that sense-data must be interpreted by reason. Clear differentiation between the two, sense-data and reason, is not always found in these thinkers. Windelband calls these early philosophies "crass sensationalism" in their psychological assumptions.⁶⁹ The Pythagoreans are called mathematical rationalists because of a movement toward abstraction and away from concrete sense-data; this movement is seen in their emphasis on mathematical relations rather than on sense objects. The Eleatics are called metaphysical rationalists because of the further movement toward abstraction in their doctrine of Being, which rejected sense-data as being reliable in interpreting the world.

⁶⁹ Windelband. op. cit., p. 65. Democritus is not included in this summary but he discusses him later. It is obvious that he need not be exempted from this assertion, however.

It is maintained that all of these men were rational realists. Epistemological idealism by no means can be associated with the abstract philosophers of this period, nor can it be associated with the less abstract philosophers. These men were realists in that there was constantly assumed (at least) an approximate relation between reality and the knowing process, whether that process be sense-data interpreted by reason or reason alone.

One more consideration is important: it is maintained that the cosmologists were realists, but it is difficult, in the light of the discussion, to feel that Windelband is justified in calling all of them sensationalists in their psychology. He asserts this even of the metaphysical rationalists. He says that both Heraclitus and Parmenides did not know how to distinguish between perceiving and thinking.⁷⁰ It is granted that Parmenides expressed the necessity of dependence upon bodily relations in which thinking is involved. It is also granted that he maintained with Empedocles that like is always perceived by like.⁷¹ This may be called a sensationalism in psychology, but epistemologically, one cannot get away from the fact that Parmenides maintained that his perceptions indicated change while his logic said it was impossible. His whole philosophy indicated that he followed his logic to the rejection of the validity of his perceptions.

⁷⁰ Ibid., pp. 64-65.

⁷¹ Loc. cit.

CHAPTER IV

THE SOPHISTS, SOCRATES, AND THE SEMI-SOCRATICS

The fifth century was the age of Greek enlightenment. Athens had come of age and as a result of the Persian Wars (500-449 B. C.), became a world power. She also was the intellectual and artistic center of Greece. The spirit of free inquiry had begun to permeate other fields of thought beside philosophy. The dramatic poetry of Greece became deepened and broadened by the influence of reflection and criticism. This was the period of Aeschylus, Sophocles and Euripides. Superstition and old legends were laid aside for more critical historical writing in the hands of Herodotus and Thucydides. Hippocrates was prominent in the progress of medicine toward a more scientific attitude.

Interestingly enough, the period of the spread of the new criticism is also the period of the close of the early great philosophical systems. This was a period of great individual opinion in philosophy and, as a result, philosophy tended to degenerate into subjectivism. These innumerable private philosophical attitudes bred scepticism. Thucydides perhaps exaggerated, but at least his words are indicative:

Words had to change their ordinary meaning and to take that which was now given them. Reckless audacity came to be considered the courage of a loyal ally; prudent hesitation, specious cowardice; moderation was held to

be cloak for unmanliness; ability to see all sides of sides of a question, inaptness to act on any.¹

I. THE SOPHISTS

This new movement of free-thinking individualism was represented by the Sophists as against the conservative op-²posers of the new thought. These Sophists were professional teachers who traveled around giving instruction, for pay, in thinking and speaking and preparation for political life. There was a general depreciation of metaphysical speculation and a general scepticism with regard to knowledge, and, therefore, the attention was turned toward moral and political con-³siderations along with dialectical matters.

The extreme subjectivism with its accompanying scepticism was a chief characteristic of the Sophists. Protagoras, the earliest known Sophist, revealed this characteristic. His famous expression regarding this seems to have been recorded carefully by Plato in the Theaetetus: "Man is the measure of

¹ Thucydides. The Peloponnesian War, Book III, 82. (The Complete Writings of Thucydides, Modern Library, pp. 189-190.)

² Cf. Thilly. op. cit., pp. 40-44 for an introduction to this new thought.

³ Ibid., pp. 44-48. For more complete reviews of the Sophists and their place in culture, cf. Jaeger. op. cit., pp. 286-331; Gesperz. op. cit., pp. 412-437; Burnet. op. cit., pp. 105-125; and Stace. op. cit., pp. 106-126.

all things. . . of the existence of things that are, and of the non-existence of things that are not. . . ." ⁴ This, says Turner, is a relative knowledge which denies all objective truth and reduces knowledge to individual opinion. ⁵ The distinction between objective truth and subjective impression is broken down. As Stace says, "What it meant was that there is no objective truth, no truth independent of the individual subject. Whatever seems to the individual true is true for that individual." ⁶

This would seem to have led to scepticism and it did; it is not certain, however, that Protagoras meant that it should be carried that far. If Plato's Protagoras is a correct picture of the Sophist's views, wisdom and knowledge are held in high esteem by Protagoras. ⁷ Gomperz suggest that, by making man the measure of all things, Protagoras meant generic man to be the standard:

Man or human nature is the standard for the existence of the things. In other words, only what is real can be perceived by us. The unreal cannot supply any object to our perception. So much for the leading thought of Protagoras, the proof of which has not been preserved for us. The emphasis laid on the conception of man was doubtless responsible for his secondary thought that we men cannot break through the limits of our own nature; that the truth at-

⁴ Plato. Thaetetus, 152. (Benjamin Jowett, translator. The Dialogues of Plato, Volume II, p. 152.).

⁵ Turner. op. cit., pp. 72-73.

⁶ Stace. op. cit., p. 115.

⁷ Plato. Protagoras, 352. (Jowett. op. cit., p. 121.).

tainable by us must lie within those limits; that, if we reject the evidence of our perceptive faculties, we have no right to confide in our remaining faculties; and, above all, that in such circumstances there would be no material for cognition left over for us. Nay, how should we seek for a criterion of truth and what significance could we ascribe to the words "true" and "untrue", if we repudiated root and branch human truth, the sole truth within our reach?⁸

Gomperz realizes that this view goes against the portraits of Protagoras in Plato's writing; Burnet prefers to agree with Plato.⁹

Whatever Protagoras meant by his teaching, the emphasis was decidedly subjective and knowledge was considered as relative. Such a movement followed naturally on the heels of the distrust of the senses which appeared in Heraclitus, in the Eleatics, and even in Democritus.

Protagoras may have been unwilling to become sceptical about objective truth but was merely placing his attention on the knowing subject; however, he put into motion a type of thinking which in the hands of Gorgias became a thorough-going scepticism. The latter declared Being, Knowledge, and Communication of Knowledge to be impossible. By making man the measure of all things, Protagoras had limited the entire psychic life to sensations only and the opinions which arise from these, but perception rests upon motion, in the minds of

⁸ Gomperz. op. cit., pp. 453-454.

⁹ Burnet. op. cit., pp. 115-116.

these early thinkers. (Empedocles, Anaxagoras and the Atomists were agreed on this.) For perception to take place, there must be motion both in the object and in the subject. Thus the subject and the object condition each other. Knowing, therefore, came to be more of a personal thing and universal validity vanished.¹⁰

On the basis of such a subjectivism, it could be as easily maintained that everything is false or that everything is true. Protagoras had chosen the latter; Gorgias chose the former. Using the dialectical type of reasoning introduced by Zeno, Gorgias attempted to refute the very position which Zeno and the other Eleatics were trying to maintain. Gorgias adopted three propositions which he attempted to prove: (1) that there is nothing; (2) that even if there is one cannot know it; (3) and if we did know it we could not communicate it.¹¹ The second proposition is the one that deserves consideration in this study. Gomperz summarizes Gorgias' argument in this way:

If Being is to be known, there must somewhere be a warrant of the correctness of the alleged knowledge, but when we come to look for that warrant, we find ourselves disappointed. It is not to be discovered in sense-perception, the infallibility of which has been so vehemently disputed, nor yet in our thought or imagination, for

¹⁰ Windelband. op. cit., pp. 91-93.

¹¹ Burnet. op. cit., pp. 119-120.

otherwise we should not be able to imagine what is known to be false--a chariot-race on the sea, for example. And if the concordance of many witnesses affords no valid proof of the correctness of our sense-perceptions, their evidence must also be rejected in the sphere of thought and imagination. It might be valid if we lost our faculty of imagining the unreal, but the instance that has just been given completely demonstrates the contrary.¹²

The movement toward scepticism has been delineated. What was at least implicit in Protagoras became explicit in Gorgias with his metaphysical nihilism and epistemological scepticism.¹³

William Ernest Hocking says that scepticism is not necessarily an unmitigated evil. The fact that a man uses reason to doubt reason helps to reinstate the role of reason.

The effort to doubt everything thus leads to the discovery that there is something which cannot be doubted: a perfectly universal scepticism is impossible. The criticism of reason must recognize a sphere in which reason is successful, and mark it off from other sphere in which it works badly, or perhaps necessarily fails.¹⁴

Such a reaction to the scepticism of the Sophists appeared in the person and thought of Socrates.

¹² Gomperz. op. cit., pp. 484-485.

¹³ Cf. Zeller. op. cit., pp. 92-95. This tendency has been associated with the Sophists in general. The two Sophists who have not been discussed, Hippias and Prodicus, showed little interest in philosophy and, therefore, need not be discussed. Cf. Turner. op. cit., pp. 73-74; Burnet. op. cit., p. 118; Ueberweg. op. cit., pp. 77-78. It is likely that there were many Sophists who took little interest in philosophical considerations. For a review that is more sympathetic with the Sophists, cf. George Grote. A History of Greece, Volume VIII, pp. 312-359.

¹⁴ William Ernest Hocking. Types of Philosophy, p. 131. Hocking has an interesting discussion of scepticism on pp. 126-131.

II. SOCRATES

One of the problems facing one who attempts a study of Socrates is the questions of the reliability of the sources. Socrates wrote nothing himself, or if he did, it has not been preserved. One must turn to the writings of his pupils.

There are two main sources, Plato and Xenophon.¹⁵ These two along with the fragments of the dialogues written by Antisthenes and Aeschines, have somewhat different pictures. Plato presented Socrates as a philosopher; Xenophon, as a moralist. Ueberweg says:

Xenophon appears to attribute too unconditionally to Socrates the tendency, natural to himself, to connect all scientific activity with a practical purpose, and he thus gives too small a place to the dialectic of Socrates, as compared with his ethical teachings.¹⁶

However, Ueberweg feels that both Plato's and Xenophon's accounts are reliable.

In their account of the life of Socrates, the two principle authorities, Xenophon and Plato, substantially agree, although the Platonic picture is sketched with the more delicate hand. As to their reports of his doctrine, it is, first of all, unquestionably true that Plato in his dialogues generally presents his own thoughts through the mouth of Socrates. But in a certain sense his dialogues can, nevertheless, serve as authorities for the Socratic teaching, because of the groundwork of the phil-

¹⁵ Aristophanes' Clouds gives a mere satire of Socrates that carries little if any historical weight. Cf. Rogers. op. cit., pp. 53-54. For a review of the Clouds, cf. Lewis Leaming Forman. "Argument of the Clouds" in Aristophanes. Clouds, pp. 75-77.

¹⁶ Ueberweg. op. cit., p. 85.

osophy of Plato is contained in that of Socrates, and because it is possible, in general, though not in all cases in detail, to discriminate between the Platonic and Socratic elements. Plato took care not to be led by his love of idealization too far from historic truth; in some of his compositions (in the Apology, in Crito, and in part also in the Protagoras, Laches, etc.) he remains almost entirely faithful to it, and in others puts those doctrines which Socrates could not have professed into the mouth of other philosophers.¹⁷

Edward Zeller agrees with the assertion of the reliability of the account of Plato and, for the most part, the reliability of the account of Xenophon. At least, he feels that Dissen and Schleiermacher suspect the latter account too much.¹⁸ Jaeger says that these accounts were probably not published during Socrates' lifetime and thought they differ yet they all agree in their chief aim, "to re-create the incomparable personality of the master who had transformed their lives".¹⁹ Thus the difficulty lies in the determining of the historicity of these apologies. Even the form in which Plato wrote was set into the style which Socrates used for his teachings,²⁰ namely, the dialogue. There is also doubt thrown on the early dating of Xenophon's writing, and even if it were early, his picture shows no cause for the suspicion which led to Socrates'

¹⁷ Ibid., p. 84.

¹⁸ Zeller. op. cit., pp. 103-104.

¹⁹ Werner Jaeger. Paideia, Volume II, pp. 17-18.

²⁰ Ibid., p. 19.

death. Therefore, it seems that doubt has been cast upon the reliability of both sources. Schleiermacher feels that neither Xenophon nor Plato can be accepted exclusively but that they must be played against each other in this way:

What can Socrates have been in addition to all Xenophon says he was, without contradicting the characteristic qualities and rule of life that Xenophon definitely declares to have been Socratic—and what must he have been, to give Plato the impulse and the justification to portray him as he does in the dialogues.²¹

There is one other available source that holds the value of being near enough in time to Socrates and yet of being a more disinterested review. This source is Aristotle, whose historical statements carry even more value because they are limited to the problem of the relation between Socrates and Plato over the doctrine of Ideas. Aristotle did not accept the doctrine and was, therefore, less subjective in discussing it. Perhaps the most complete thing Aristotle said on this matter is found in his Metaphysics:

But when Socrates was occupying himself with the excellences of character, and in connexion with them became the first to raise the problem of universal definition (for of the physicists Democritus only touched on the subject to a small extent, and defined, after a fashion, the hot and the cold; while the Pythagoreans had before this treated of a few things, whose definitions—e.g. those of opportunity, justice, or marriage—they connected with numbers; but it was natural that Socrates should be seeking the essence, for he was seeking to syllogize, and

²¹ Friedrich Schleiermacher. Ueber den Wert des Sokrates als Philosophen in his Sämtliche Werke, III, 2, p. 297-298, cited by Jaeger. op. cit., pp. 21-22.

'what a thing is' is the starting-point of syllogisms; for there was as yet none of the dialectical power which enables people even without knowledge of the essence to speculate about contraries and inquire whether the same science deals with contraries; for two things may be fairly ascribed to Socrates--inductive arguments and universal definition, both of which are concerned with the starting-point of science):--but Socrates did not make the universals or the definitions exist apart: they, however, gave them separate existence, and this was the kind of thing they called Ideas.²²

This seems to be strong authority, but in recent years there has been a disparaging of the Aristotelian evidence on the basis that 'it made Socrates into a thin and unconvincing figure, and his conceptual philosophy into a mere triviality'.²³ As a result of the abandonment of this evidence, the ground is uncertain, as can be seen by the differences between the various portraits of Socrates. Heinrich Maier maintains that Socrates was not merely a theoretical philosopher but that he was the climax of a long struggle towards human freedom and the self-sufficiency of moral character. As such Socrates was the supreme antitype of Christ and the religion of redemption. Plato was an entirely different person who should not be compared with Socrates; only his early dialogues reveal the true Socrates.²⁴ A. E. Taylor and John Bur-

²² Aristotle. Metaphysics, Book XII (M), Chapter 4, 1079b19-32. (McKeon. op. cit., p. 894). The references from Aristotle in each case are only close approximations.

²³ Jaeger. op. cit., p. 24.

²⁴ Heinrich Maier. Sokrates, pp. 104 f., cited by Jaeger. op. cit., pp. 24-26.

net, on the other hand, feel that all of Plato's Socratic dialogues give a sympathetic picture of Socrates. Plato's own distinct teachings then come in the dialogues where Socrates is no longer the leading figure. That being the case, Socrates was what Plato described and was the man who created the doctrine of the Ideas.²⁵

Jaeger maintains that these opposing ideas, which have appeared in later years regarding Socrates are re-statements of the ideas which separated Socrates' immediate disciples into two opposing schools. That being the case, the historian must regard Socrates as having had a personality great enough to incorporate this duality. His very indefiniteness made various interpretations possible. This makes him more complex and harder to understand, but the true Socrates must be found in that area.²⁶

On this basis, the historical approach to the problem must be, as Schleiermacher has proposed,²⁷ a compromise between the Xenophanes source and the Plato source. Aristotle must also be considered, for the grounds for ruling him out do not seem to be conclusive.

²⁵ A. E. Taylor. Varia Socratica and Socrates, cited by Jaeger. op. cit., pp. 24, 25-26. Cf. also Burnet. op. cit., Chapter VIII, pp. 126-150, especially see his conclusions on pp. 149-150.

²⁶ Jaeger. op. cit., pp. 26-27. Cf. his entire section of the Socratic problem, pp. 17-27.

²⁷ Cf. previously in this paper.

A review of Socrates' life probably would not be too important for this study. Plato gave in the *Phaedo* a review of Socrates' philosophical development, which shows his movement of interest from Ionian speculations to criticism.²⁸ It is difficult to know how much of this is really a review of Plato's own development. It seems clear enough that Socrates did have an interest in the natural philosophers during the earlier part of his life. Xenophon even indicated that Socrates perused the writings of these philosophers in his later years.²⁹ R. D. C. Robbins says that Ion of Chios, a contemporary witness, remarked that Socrates was for a time a pupil of the physical philosopher Archelaus.³⁰ It seems he was at one time interested in the philosophy of Anaxagoras with its doctrine of mind, but he soon was disappointed in the philosopher's physical interpretations.³¹

Like the Sophists, Socrates felt that the physical speculations that had preceded him were irrelevant and, there-

²⁸ Plato. *Phaedo*, 96-101. (Benjamin Jowett. *The Dialogues of Plato*, Volume I, pp. 480-484).

²⁹ Xenophanes. *Memorabilia of Socrates*, Book I, Chapter VI, 14. (J. S. Watson, translator. *The Anabasis, or Expedition of Cyrus, and the Memorabilia of Socrates.*, p. 383).

³⁰ R. D. C. Robbins. "Introduction". Xenophon's *Memorabilia of Socrates*, p. v.

³¹ Plato. *op. cit.*, 98-99. (Jowett. *op. cit.*, pp. 482-483); and Xenophon. *op. cit.*, IV, 7, 6. (Watson. *op. cit.*, p. 503).

fore, he centered his interest on man. The Sophists, he felt, had gone astray in emphasizing truth as subjective appearance. Stace says:

Socrates corrected this by admitting that the truth must be my truth, but mine in my capacity as a rational being, which means, since reason is the universal, that it is not my private truth, but universal truth which is shared by and valid for all rational beings.³²

Socrates was, therefore, not so much opposed to ignorance as³³ to confusion of thought. This indicates his faith in universal truth. Plato and Xenophon seem to have agreed at this point and Aristotle's use of the terms "universal definition"³⁴ seems also to have referred to this. Since Aristotle specifically states that Socrates did not make these universals exist apart and,³⁵ since Xenophon does not discuss this theoretical development in Socrates, the doctrine of Ideas is left to³⁶ be discussed as primarily a Platonic doctrine.

Even if the doctrine of ideas is regarded as primarily a Platonic doctrine, it is clear that Socrates re-emphasized

³² Stace. op. cit., p. 153.

³³ Gomperz. op. cit., p. 77.

³⁴ Plato. op. cit., 100 ff. (Jowett. op. cit., pp. 484 ff.); Xenophanes. op. cit., Book IV, Chapter VI, 15. (Watson. op. cit., p. 501); Aristotle. op. cit., Book XII (M), Chapter 4, 1079b19-32. (McKeon. op. cit., p. 834).

³⁵ Aristotle. loc. cit.

³⁶ Cf. next chapter.

rationalism following the scepticism of the Sophists. Yet this principle is limited to practical and moral considerations. Friedrich Ueberweg says: "The fundamental conception of Socrates was . . . the inseparable union of theoretical insight with practical moral excellence."³⁷ It is not the purpose of this paper to investigate the ethics of Socrates. It suffices to say that his emphasis was that man's rational power gives his action ethical significance. It is therefore ethical for him to do what his reason says is best, for reason is man's guide. Plato reports Socrates as saying:

And he is to be deemed courageous whose spirit retains in pleasure and in pain the commands of reason about what he ought or ought not to fear. . . . And him we call wise who has in him that little part which rules, and which proclaims these commands; that part too being supposed to have a knowledge of what is for the interest of each of the three parts and of the whole. . . . And would you not say that he is temperate who has these same elements in friendly harmony, in whom the one ruling principle of reason, and the two subject ones of spirit and desire are equally agreed that reason ought to rule, and do not rebel?³⁸

Aristotle and Xenophon agree that Socrates taught this principle that reason is a reliable guide to conduct.³⁹

³⁷ Ueberweg. op. cit., p. 85.

³⁸ Plato. Republic, Book IV, 442. (Jowett. op. cit., p. 706).

³⁹ Aristotle. Nicomachean Ethics, Book VII, Chapter 2. 1145b25-28. (McKeon. op. cit., p. 1038); Xenophon. op. cit. Book IV, Chapter VI, 6. (Watson. op. cit., p. 498). Cf. also Miles M. Dawson. The Ethics of Socrates, pp. 3-8.

Since it is by reason that a man should be guided, it follows that ignorance or unreason is wickedness. If that be true, then knowledge, especially of oneself, is vitally important.⁴⁰ Socrates regarded his mission to be the cultivation of this knowledge that is virtue. Burnet says:

We know in a general way what the mission of Socrates was. It was to convict his fellow-men of their ignorance and sinfulness (which for Socrates was the same thing), and his method was that of searching questions.⁴¹

Two questions must now be discussed: What did Socrates mean by "knowledge", and what was his method for finding it? A discussion of the latter question leads us to an understanding of the former. It has already been asserted that Socrates believed that truth had some sort of objective status, while at the same time it was available to the reasoning power of men. This truth was limited to the practical realm of moral conduct primarily. This, as Frost says, is a dependence on ideas as over against sense-experience.⁴² He worked out a method of induction on the basis of this faith by which

⁴⁰ Xenophon. op. cit., Book III, Chapter IX, 6. Here Socrates regards acting in ignorance as being close to madness. Cf. also Book IV, Chapter II, 24 and Chapter VI, 11. (Watson. op. cit., pp. 451-452, 477, and 500 respectively); Plato. Protagoras, 357. (Jowett. op. cit., pp. 125-126).

⁴¹ John Burnet. "Socrates". Encyclopaedia of Religion and Ethics. (James Hastings, editor), Volume XI, p. 670.

⁴² Frost. op. cit., p. 280.

he felt true knowledge could be clearly delineated. Turner divides Socrates' method into two different stages. The first stage was the negative stage in which Socrates himself approached the problem as one who seeks for knowledge. By questioning he forced his victim to confess ignorance. (The pretended deference which Socrates paid to the person or persons he questioned came to be called the Socratic irony.) In the second stage, the positive stage, Socrates proceeded inductively from the ground of common assent, by another series of questions, to a concept which was regarded as unalterable. This method was named maieutic by Socrates, who regarded himself as a mid-wife bringing into consciousness the truth already in the mind of the pupil.⁴³ By following this method, Socrates revealed his belief that sense-impressions and uncritical generalizations need to be critically tested.⁴⁴ Plato's Meno is a good example of the use of this method by Socrates.⁴⁵

The whole force of this method is based on the concept of the knowledge sought for as authoritative for all, in opposition to the relativism of the Sophists. Windelband says that Socrates was the first to grasp the essential worth of

⁴³ Turner. op. cit., pp. 80-81. Cf. also Plato. Theaetetus, 149-151. (Benjamin Jowett. The Dialogues of Plato, Volume II, pp. 150-153).

⁴⁴ Turner. op. cit., p. 81.

⁴⁵ Cf. Plato. Meno. (Benjamin Jowett. The Dialogues of Plato, Volume I, pp. 349-380).

such knowledge which comes by reason and to carry out its ramifications psychologically and logically. It had to be more than the sensuous mode of apprehending the world or the method of traditional opinion. Windelband says:

The idea that is to be more than opinion, that is to serve as knowledge for all, must be what is common in all the particular ideas which have forced themselves upon individuals in individual relations: subjective universal validity is to be expected only for the objectively universal. Hence, if there is to be knowledge, it is to be found only in that in which all particular ideas agree. . . . The universal validity which is claimed for knowledge is only possible on condition that the scientific concept brings out into relief the common element which is contained in all individual perceptions and opinions.⁴⁶

All of this, it must be remembered, is limited to the practical areas of life and conduct.

Therefore, Socrates' conception of knowledge and his inductive method of attaining it give the bounds to his theory of knowledge. This theory asserted that there is such a thing as objective reality which can be known by all men since it is common to all men, possibly because the souls of men have pre-existence in the realm of Ideas. Thus truth is limited to man's practical life and conduct. It is found by clearing away opinions and proceeding by rational inductive thought from what is commonly agreed upon the general concepts which are unalterable and show themselves in the clear light of
⁴⁷
 pure reason to be so.

⁴⁶ Windelband. op. cit., p. 95.

⁴⁷ Cf. Windelband's review, ibid., pp. 94-98.

This is not the pure rationalism it seems to be, for in connection with this was Socrates' faith in Providence where understanding ceases. His confidence in such a teleology is seen in the limits which he gave to ethical science by his reliance upon the inner voice, the daimonion.⁴⁸ Gomperz says that it is difficult to understand exactly what Socrates meant by the daimonion. At times, he seemed to be using the term in a half-jesting manner, while at other times he seemed to be very serious in his use of it.⁴⁹ Gomperz says:

The statement that the *δαιμόνιον* held him back whenever he felt any inclination to take an active part in politics, may be taken to indicate that he was here guided by a species of instinct, a dim but truthful estimate of his own capabilities emerging from the sub-conscious under-currents of psychic life.⁵⁰

Later on, however, Gomperz says that we are in no position even to form a conjecture as to what Socrates meant.⁵¹ Windelband indicates the role of the daimonion in supplementing reason:

The more he pressed toward clearness of conceptions and complete knowledge of ethical relations, and the more true

⁴⁸ Cf. Plato. Apology, 31. (Jowett. op. cit., p. 414); Xenophon. op. cit., Book IV, Chapter VIII, 5. (Watson. op. cit., p. 506).

⁴⁹ Cf. Plato. loc. cit. (Jowett. loc. cit.).

⁵⁰ Gomperz. op. cit., p. 88.

⁵¹ Loc. cit.

to himself he was in this, the less could he hide from himself that man in his limitation does not completely succeed in this task, that there are conditions in which knowledge is not sufficient for certain decision, and where feeling enters upon its rights. Under such conditions Socrates believed that he heard within himself the daimonion, a counselling and for the most part warning voice. He thought that in this way the gods warned from evil in difficult cases, where his knowledge ceased, the man who otherwise served them.

So the wise man of Athens set faith and feeling beside ethical science.⁵²

III. THE SEMI-SOCRATIC SCHOOLS

Brief mention should be made of the Semi-Socratic schools. There are four of these: the Megarian or Eristic School with Euclid, the Elean School with Phaedo, the Cynics with Antisthenes, and the Cyrenaics or Hedonists with Aristippus. The first two majored in Socratic dialectics mixed with an Elean element; the second two majored in Socratic
53
ethics mixed with Sophist elements.

Euclid of Megara extended Socratic thought into the realm of metaphysics by a combination with the Eleatic element of Being. Parmenides had made Being a primordial entity filling space and endowed with thought. Melissus had, according to Gomperz, added the element of feeling so that

⁵² Windelband. op. cit., p. 98. For a complete review of Socrates' philosophy, cf. George Grote. A History of Greece, Volume IX, Chapter LXVIII, pp. 1-89.

⁵³ Turner. op. cit., p. 85.

Being was conscious of its blissful state. Euclid seems, therefore, to have added will by identifying the Socratic Good with the Eleatic Being. As a result, Euclid regarded the Not-Good as non-existent.⁵⁴ Schwegler says that Stilpo, a later Megarian, carried this to the point where reason and knowledge are the only end, and anything which has nothing in common with knowledge of the good is to be regarded with indifference.⁵⁵ To defend their views, the Megarians used the tactics of Zeno, the Eristic method. They argued by refuting the arguments of their opponents and thus indirectly established their own theses. However, later the followers of Euclid bogged down into quibbling and strife and, as Schwegler says,⁵⁶ their eristic method formed a transition into scepticism.

Ueberweg and Turner regard Phaedo and the Elean school as having held doctrines largely like the Megarians, therefore, no separate discussion is made of them.⁵⁷

The Cynics were led by Antisthenes and included such persons as Diogenes of Sinope, Crates, Menedemus, and Menippus. They regarded virtue as the prominent problem of philo-

⁵⁴ Gomperz. op. cit., pp. 174-175.

⁵⁵ Schwegler. op. cit., p. 57.

⁵⁶ Turner. op. cit., p. 86; Schwegler. loc. cit.

⁵⁷ Turner. ibid., pp. 86-87; Ueberweg. op. cit.

sophy; whereas Socrates had regarded virtue as the highest good, they regarded it as the only good. The essence of virtue is self-control. Enjoyment, as an end in itself, is an evil.⁵⁸ The example of self-control for the Cynics was Socrates himself. However, they say only part of the man Socrates as well as having grasped only a part of his thinking. Erdman says:

The Socrates of whom Antisthenes wishes to be a disciple, is only the man who defied all hardships, who stood in front of silversmith's shops in order to rejoice that he did not want so many things, who wore no shoes, etc. The Socrates, on the other hand, who could give himself over to enjoyment so safely, at the feast of Agathon, he has never seen, and hence he thinks that Socrates always did things he found irksome.⁵⁹

It is this emphasis which came out at a later time in the Stoics.⁶⁰

Mixing in the subjectivism and dialectical method of the Sophists, Antisthenes developed his theory that the individual alone is real and that all propositions are equally true or that contradiction is impossible.⁶¹ This theory he

⁵⁸ Ueberweg. op. cit., p. 92.

⁵⁹ Erdman. op. cit., p. 93. Cf. also Gomperz. op. cit., pp. 143 ff.

⁶⁰ Cf. Joseph A. Leighton. The Field of Philosophy, Chapter IX, pp. 111 ff.

⁶¹ Aristotle. Topics (from the Organon), Book I, Chapter 11. 104b20-21. (McKeon. op. cit., p. 197); Metaphysics, Book V, Chapter 29. 1024b32-34. (McKeon. ibid., p. 776).

set over against Plato's theory of Ideas. It is a metaphysical nominalism and an epistemological subjectivism bordering upon scepticism, if not completely sceptical.⁶²

In direct opposition to the ethics of the Cynics, the Cyrenaics, led by Aristippus, emphasized the hedonistic doctrine that pleasure is a good in itself and that virtue is good only as a means to the end of pleasure. The Socratic element entered as the principle of "self-determination directed by knowledge".⁶³ Thus pleasure was to be controlled by knowledge. Ueberweg says:

The Cynics sought for independence through abstinence from enjoyment, Aristippus through the control of enjoyment in the midst of enjoyment. . . . To enjoy the present, says the Cyrenaic, is the true business of man; only the present is in our power.⁶⁴

As to the theory of knowledge found among the Cyrenaics, the hedonic character of their ethics corresponds to an epistemological restriction of knowledge to the senses. They distinguished between the "thing-in-itself" and the phenomenon which exists in the consciousness. Nothing can be known of

⁶² Cf. Turner. op. cit., p. 88; Ueberweg. op. cit., p. 93. The terms "nominalism" and "realism" (not to be confused with epistemological realism) come into greater use later. The distinction is that nominalism regards the particulars alone as real while realism regards the universals as real. These terms come into greater use in the eleventh century. Cf. Ueberweg. op. cit., p. 366.

⁶³ Ueberweg. op. cit., p. 96.

⁶⁴ Ibid., pp. 96-97.

the former but that it exists. Here is the consistent completion of Protagoras' subjectivism. It was a scepticism as to the outside world, but it associated the ethical good with the pleasurable sensations which exist in the consciousness.⁶⁵

IV. CONCLUSIONS

In conclusion, the Sophists with their subjective emphasis brought an interest in epistemology and anthropology. Their epistemology became a scepticism or a near-scepticism. With Socrates, rationalism was reasserted but limited largely to ethics. He laid the basis for epistemology by his inquiry into the conditions of knowledge.⁶⁶ His conclusions were that there is an objective truth that can be reached by inductive study. It is common to all men. By his emphasis on subjective attainment of knowledge of the truth, he implied a distrust of things as they seem, that is, of sense-experience. Whether or not he developed the doctrine of Ideas as such is doubtful. He was a rationalist and by implication at least a realist. His rationalism was not absolute because of his emphasis on the inner voice, the daimonion. This,

⁶⁵ Turner. op. cit., pp. 90-91; Ueberweg. loc. cit.

⁶⁶ Turner. op. cit., p. 84.

along with his faith in the unity of the universe, constitute the element of faith in his theory of knowledge. The semi-Socratics mixed Socratic elements with Eleatic and Sophist elements, which resulted largely in epistemological scepticism. According to Schwegler, the Megarian school led directly to Scepticism, while Cynicism led to Stoicism and Cyrenaicism led to Epicurianism.⁶⁷

In general, the movement has been from cosmology to anthropology and from a more or less naive rational realism to a more abstract and critical rational realism. With the movement toward anthropology there was a movement toward subjectivism and scepticism, which was stopped to some extent by Socrates. The faith of this period centers in the assumption that there is a unity to the universe and that it can be known by reason. Even the more sceptical thinkers assumed the ability of reason to show that knowledge does not exist.

⁶⁷ Schwegler. op. cit., p. 57.

PART THREE

PLATO

CHAPTER V

PLATO'S EARLIER DIALOGUES

Because of their imperfect grasp of the doctrines of Socrates, the men who have been discussed in the latter part of the preceding chapter, are called Semi-Socratics. Following the same comparison, Schwegler calls Plato the complete Socratic:

The attempts which we have seen hitherto to build further on the the [sic.] main pillars of the Socratic doctrine, being from the very beginning without any thriving germ of life, ended fruitless, resultless. The complete Socrates was understood and represented by only one of his disciples, Plato. Proceeding from the Socratic idea of knowledge, he collected into a single focus all the elements and rays of truth which lay scattered, not only in his master, but in the philosophers before him, and made of philosophy a whole, a system.¹

Not only did Plato extend and round out the thought begun by Socrates, he adopted for his mode of writing the actual mode which was used by Socrates, the dialogue.² His philosophical thought must be distilled from this series of dialogues almost completely. The method this study follows is an investigation of the most prominent dialogues and a summary of the relevant ideas in each. Dialogues which are questioned as to authorship are not discussed. The order of

¹ Albert Schwegler. Handbook of the History of Philosophy, p. 57.

² Werner Jaeger. Paideia, Volume II, p. 19.

the dialogues discussed follows the general order which Constantin Ritter follows in his book The Essence of Plato's Philosophy. He divides the dialogues into earlier and later writings, and this study follows the same method.³ No brief is held for the order since it is not felt to be important for an over-all-view, but the general division into early and late dialogues is important.

I. THE PHAEDO, THE SYMPOSIUM, THE CRATYLUS, AND THE MENO

The Phaedo seems to have more to do with immortality than with anything else, but it gives a glimpse into the philosopher's concept of ideas. Socrates faces death for his convictions, but he regards it as a release from the senses and an opening into a world where he can grasp Being, the very essence of things, itself.⁴ Paul Elmer More includes this in his biographical group of dialogues,⁵ but it is clear that even here the doctrine of ideas emerges. Socrates in contemplating death relates his philosophical development. He had turned from the physical philosophers to Anaxagoras' doctrine of Mind only to find it unsatisfactory. He had finally found

³ Constantin Ritter. The Essence of Plato's Philosophy, pp. 16-17. The Platonic epistles are not discussed in this paper. Their validity is not at present fully substantiated.

⁴ Plato. Phaedo. (Benjamin Jowett. The Dialogues of Plato, Volume I, pp. 441-501).

⁵ Paul Elmer More. Platonism, pp. 310-311.

satisfaction by seeking the truth of things in their concepts, for above the confusing concrete he had found the simple and plain absolute concept and had called these "ideas" ($\epsilon\acute{\iota}\delta\omicron\varsigma$). It is on this basis that he bases his conviction that the soul is immortal. (It is not necessary to go into his proofs for immortality).⁶ The word "idea" evidently does not designate a concept which is merely subjective, but one that wholly transcends the subjective realm. It possesses objective reality, for the attributes of the concrete are derived from participation in general ideas.⁷ The indication is that this was not a new doctrine which Plato introduced in this dialogue but that these thoughts had been discussed previously.⁸ It pays one, therefore, to look into other dialogues, where the same thoughts occur which are, in this dialogue, associated with "ideas".

More says that the Symposium brings these thoughts into relation with the life as an ethical force "by exhibiting the love and desire they excite in the soul by the attraction of their beauty."⁹ The lover proceeds upward from the

⁶ Cf. Theodor Gomperz. Greek Thinkers, Volume III, pp. 41-44 and Alfred Edward Taylor. Plato: The Man and His Work, Chapter VIII, pp. 174 ff.

⁷ Plato. op. cit., 100 ff. (Jowett. op. cit., pp. 484 ff.). See also Ritter. op. cit., pp. 87-95.

⁸ Plato. op. cit., 100b. (Jowett. op. cit., p. 484).

⁹ More. op. cit., p. 311.

concrete to the abstract through various levels until he at last sees absolute beauty "pure and clear and unalloyed, not clogged with the pollutions of mortality and all the colours and vanities of human life. . . the true beauty simple and divine"¹⁰. In all of this the term "idea" is not used, but absolute beauty in this dialogue is probably the same absolute beauty that is associated with ideas in the Phaedo. Such absolute beauty exists objectively and is always the same to all men who behold it. Gomperz suggests that this¹¹ is a delineating of Plato's erotic mysticism.

The Cratylus deals primarily with the theory of language, but it is also listed by More in his grouping of metaphysical dialogues. The argument is that language is no key to the nature of things, for language changes while things do not. If, as Heraclitus maintained, everything is in flux, then things cannot be known. To be known, a thing must retain a definite form or idea, and thus it must be known¹² without words.

¹⁰ Plato. Symposium. 212a. (Jowett. op. cit., p. 335). and Ritter. op. cit., pp. 95-97.

¹¹ Ibid. 211. (Jowett. op. cit., pp. 334-335). Cf. Theodor Gomperz. Greek Thinkers, Volume II, p. 396 and Taylor. op. cit., Chapter IX, pp. 209 ff. and especially pp. 230-232.

¹² Plato. Cratylus. (Jowett. op. cit., pp. 173-229); Ritter. op. cit., pp. 97-100; Theodor Gomperz. Greek Thinkers, Volume III, especially pp. 164-166; Taylor. op. cit., pp. 75 ff.

There are broad hints of the doctrine of ideas in the Laches, the Protagoras, the Euthyphro, the Greater Hippias,¹³ and the Euthydemus, according to Ritter, but the next important dialogue, as far as epistemological and ontological content is concerned, is the Meno. More gives the following brief review of it:

The Meno resumes the old question whether virtue is a form of knowledge which can be imparted by instruction. It connects Ideas with the things of eternity by the argument of reminiscence. Our knowledge of them, and our impulse to virtue, is a memory of our vision of absolute justice and goodness in some former existence.¹⁴

Benjamin Jowett says that the Meno gives the simplest and¹⁵ clearest account of the Platonic ideas. The course of the argument in the Meno centers around whether virtue can be taught or not. During the conversation, Socrates elicits from a Greek slave of Meno certain mathematical conclusions which he has never learned. Since that is the case, Socrates deduces that either this knowledge was acquired in a former state of existence or else was always known to the slave and¹⁶ had to be merely drawn into consciousness. It is clear in

¹³ Ritter. op. cit., pp. 100-101.

¹⁴ More. op. cit., p. 311.

¹⁵ Benjamin Jowett. "On the Ideas of Plato". The Dialogues of Plato, Translated into English, Volume II, p. 15.

¹⁶ Plato. Meno, especially 82 ff. (Benjamin Jowett. The Dialogues of Plato, Volume I, pp. 349-380, especially p. 361 ff.).

this dialogue that Plato asserted the existence of objective, universally valid facts which can be comprehended, and whose comprehension constitutes knowledge. This means that the objective reality existed before it became a logical conception, and that every properly formed idea has a basis in the objective world.¹⁷ However, it must be remembered that what Socrates looks for, in this dialogue, is universal virtue. As Jaeger says, this is the first expression of the logical idea of the universal, (καθόλου), but it is limited to good as a whole and must not be pressed beyond that.¹⁸ Moreover, it is a hypothetical thought. In the Phaedo, this a priori element of knowledge is treated as a fact on which the immortality of the soul is based.¹⁹ Also, Ritter says that the Phaedo emphasizes the independent existence of this a priori element whereas it is not sure that this independence is assumed in the earlier dialogues.²⁰ This independence refers to the existence of the objective reality of this element apart from the concept of it, but it does not necessarily mean the independence of the universal from the particular.

¹⁷ Ritter. op. cit., pp. 102-105. Ritter feels that this summarizes the thinking concerning ontology and epistemology in the dialogues already discussed. Cf. also Taylor. op. cit., pp. 129 ff. and especially pp. 137 ff.

¹⁸ Jaeger. op. cit. p. 163.

¹⁹ Ritter. op. cit., pp. 103-104.

²⁰ Ibid., p. 104.

Jaeger suggests that it is in the later dialogues that the relation of the universal idea to the concrete particular²¹ becomes a problem.

II. THE REPUBLIC

Before reviewing the relevant ideas which emerge from the Republic, it is well to get an overall view of what Plato was doing in this ten-book dialogue. More gives the following paragraph in summation:

Here the arguments of the earlier groups are developed and woven together into a single cord. Justice is the moral sense, and the other virtues are the specific applications of it. The just man, as he is just, has his reward in happiness now and here, and to that extent there is no need to appeal to future rewards and punishments. Justice and happiness are the effect of the Idea of the Good as the supreme cause. The philosopher is he whose life is governed by this cause. The knowledge of ourselves as happy in justice is an immediate certain intuition (the spiritual affirmation), above the practical knowledge, or opinion, which, working in the sphere of the specific virtues, is always subject to confirmation by the future. The constitution of the ideal State is expounded as a counterpart of the perfect philosopher. At the end of the Dialogue the religious sanctions of divine Providence are added to the deductions of philosophy.²²

Of the ten books, Books V, VI, VII, and X have elements which are associated with the problem at hand.

After mapping the ideal state in the earlier books of the Republic, Plato faced the problem of whether this sort of

²¹ Jaeger. op. cit., p. 164.

²² More. op. cit., p. 312.

while knowledge is unerring. The former has to do with the many; the latter, with the one in which the many participate. 25

In Book VI, Plato continued his discussion by giving specific characteristics of the philosopher-leader. He is to follow the road of knowledge which leads finally to the idea of the good which is the highest knowledge. Such knowledge begins with sense-perception of the "many", for it is the perception of the many, which partake of the nature of the one, which leads to knowledge of the one, a knowledge which is more than perceptual. With all of this Plato was clearly emphasizing a rationalistic forming of concepts. These concepts were clearly regarded as unerring knowledge of actual reality, that is, they have an ontological correlation. 26

Book VII contains the famous allegory of the cave. Gomperz gives a concise review of the allegory as follows:

The doctrine of ideas is introduced by a brilliant metaphor, in which earthly existence is compared to a sojourn in a subterranean dwelling. In this cavern men pass their whole life, prevented by chains from moving their necks or legs. Behind them there are persons passing to and fro on a raised platform, holding up all kinds of objects, wooden and stone images of animals, plants, and so on, above a breastwork or screen.

25 Ibid., 477-480. (Jowett. op. cit., pp. 740-744). Cf. also Jaeger. op. cit., pp. 258-278, and Richard Lewis Nettleship. Lectures on the Republic of Plato, Chapter IX, pp. 184-211.

26 Plato. op. cit., Book VI. (Jowett. op. cit., pp. 744 ff.).

Over and behind them a flame burns. Thus the shadows thrown by the images are all that the cave-dwellers can see. For them this world of shadows is the only reality. If one of them were to have his chains loosed, and be allowed to turn his head and see the light, or walk towards it, he would suffer pain; he would hardly be able to bear the brightness of the flame, and he would think the scene before his eyes less real than that to which he had been accustomed. But suppose him dragged forcibly up the steep path which leads out of the cave into the sunlight. He would be indignant, and the dazzling glare would prevent him from seeing anything of what could now be offered him as truth. Only by degrees would his eye become accustomed to the light of the upper world. At first he would be able to see shadows, then reflexions in water, afterwards things themselves; in time he would learn to look upon the moon and stars, last of all upon the light of the Sun himself. Should he ever return to the cave, and attempt to free the others from their imprisonment and lead them up to the light they would be furious with him, and, if they could, put him to death.²⁷

The rest of the book contains the explanation of this and the application of it to the state. The world of experience is made to be distinct from the world of concepts, yet, as has been seen in Book VI, that which is known by experience participates in that which is known by concept. The distinction comes between the perception and the concept themselves.²⁸ The latter is attained without the help of the senses. Plato continued by distinguishing between intellect and opinion in this way:

²⁷ Gomperz. op. cit., pp. 86-87. Cf. Plato. op. cit., Book VII, 514-517a (Jowett. op. cit., pp. 773-776).

²⁸ Plato. op. cit., Book VII, 517b ff. (Jowett. op. cit., pp. 776 ff.).

At any rate, we are satisfied, as before, to have four divisions; two for intellect and two for opinion, and to call the first division science, the second understanding, the third belief, and the fourth perception of shadows, opinion being concerned with becoming, and the intellect with being. . . . 29

It is clearly evident from the last words of this quotation that these distinctions in his theory of knowledge correspond with distinctions between Being and Becoming in his theory of Ontology. Plato discussed his theory of ontology more fully before the above statement was given in the dialogue. In reviewing these points, Turner lists "Sensible objects" (ὄρατον γένος) with the two subdivisions, "Real bodies" (σώματα) and "Semblances of bodies" (εἰκόνες), as correspondents respectively of "Opinion: sense-knowledge" (δόξα) with the two subdivisions "Sense-perception" (πίστις) and "Imagination" (εἰκασία). He also lists "Supersensible objects" (νόητον γένος) with the two subdivisions "Ideas" (ἰδέα) and "Mathematical entities" (μαθηματικά), as correspondents respectively of "Supersensible knowledge" (νόησις) with the two subdivisions of "Intellect" (νόησις) and "Reason" (διάνοια).³⁰ Perhaps a better word for Sense-perception would be Opinion, as Jaeger suggests, or Conviction or Belief, as Gomperz suggests. Also the term Reason might

29 Ibid. 524a, p. 793.

30 William Turner. History of Philosophy, p. 113.

31
 better be Understanding according to Jaeger's suggestion.
 Thus it is that the world of being, known by concepts, was
 set off from the world of becoming, known by experience.
 The former is changeless and thus admits of no error in the
 knowledge of it; while the latter is ever changing and thus
 admits of possible error in the perceiving of it. However,
 the dialectic which reaches the world of being must begin
 32
 with the world of becoming.

As Nettleship notes, the dialectical search is for a
 unity of knowledge. This complete unity is perfect knowledge.
 It can be found only in the Idea of Good, which he described
 in the allegory of the cave as the sun, but the dialectic
 33
 begins by noting the unity between the sciences. Such unity
 however is not the inductive hypothesis of modern science;
 it seems to be somewhat inductive but it does not bear the
 stamp of hypothesis. Plato's theory of the concepts banishes
 all hypotheses; this is the perfect knowing of the perfect
 reality. The reality exists in its most unadulterated form
 in the abstract idea not in the concrete particular, but the
 unity among the particulars starts the dialectician toward
 34
 the perfect and actual unity of the idea.

32 Plato. op. cit., 533. (Jowett. op. cit., pp. 792-793).

33 Ibid. 531. (Jowett. op. cit., pp. 790-791). Cf. Nettleship. op. cit., pp. 257-258.

34 Gomperz. op. cit., pp. 88-89. For a discussion of the allegory, cf. John Wild. Plato's Theory of Man, pp. 174 ff.

Ritter gives the following review of the epistemological and ontological elements in Book X. They are actually set in a context which is a digression, according to Nettleship,
 35
 into the field of the arts. Ritter says, in review:

In order to have a firm basis for judging the production of the arts and crafts, we must investigate the nature of imitation. In doing so we "may take our departure from our usual method. In every case we have assumed one Idea for all the particular things to which we apply the same name. . . e.g., there are many beds and many tables, but only two Ideas of these household articles, one of the bed and one of the table. . . . We have also said that the producer of each of these articles looks at the Idea while he makes the individual bed or table for our use. . . since no craftsman produces the Idea." And immediately following, "The master carpenter, as we have just found, does not construct the Idea, which we consider to be the essential bed, but only a particular bed. And if he does not produce the Idea, then that which he produces is not real." And again, "Whether God did not wish to make, or whether necessity prevented him from making, more than one bed in nature, the fact is that he made only one essential bed. Under no conditions will God permit two or more such beds to come into being. For if God were to make only two beds, a single bed would have to make its appearance whose essential characteristic ($\epsilon^{\rho}\delta\omicron\varsigma$) or form the other two beds would have to share; and this one bed would be the essential bed." 36

Plato seems, in this book, to have made a distinction between philosophy on one hand and the arts and crafts on the other. His criticism seems to have been that the arts and crafts grasp only the external or particular things, while philosophy grasps the inner laws and real facts of the world,

35 Nettleship. op. cit., pp. 340-341.

36 Ritter. op. cit., pp. 108-109. Cf. Plato. op. cit., 595 ff. (Jowett. op. cit., pp. 852 ff.).

37

namely, the ideas. At least, he seems to have carried on his argument, which is more succinct in Book VII, in Book X by expanding the concept of the idea of the good to the ideas which lie behind simple things as beds and tables.

In concluding the study of the Republic, it seems that Jowett is correct in affirming that Plato regarded the ideas as being both one and many, as being causes and as having a unity in the idea of the good which is the cause of the other ideas. However, it does not seem the Jowett is quite correct in affirming that the ideas seem to have lost their earlier aspect of universals under which individuals are contained. The dialectic which Plato clearly outlined indicates his insistence on the studying of the particulars as primary to the course of dialectics. This must be because the particular, which is perceived, participates in that which can only be known by concept. The dialectic begins at the former and ends at the latter. Jowett also says that the ideas seem to take on the aspects of hypotheses or principles. It is admitted that they are found by induction, but, as has been noted, they are regarded as far from hypothetical. If³⁸ they are principles, they are real not hypothetical.

37 Nettleship. op. cit., pp. 353-354.

38 Benjamin Jowett. "On the Ideas of Plato." The Dialogues of Plato, Translated into English, Volume II, p. 17.

III. THE PHAEDRUS AND THE THEAETETUS

In the Phaedrus, Plato has made Socrates give a refutation of Lysias, the orator, by counteracting his claim that the non-lover is more desirable than the lover. Socrates does this by showing that the lover, which Lysias talked about and Phaedrus reported, is not the lover of the highest type. The human soul is characterized by a dual striving as a charioteer with two different types of horses. There is the noble striving and the ignoble striving--the call of true love and the call of wild sensuality. While the latter drags down, the former lifts to heights. In beautiful language, Plato described the celestial heights of pure Being to which man can attain. It is from this realm he came, and it is by ³⁹recollection that he realizes it again. By this, he asserted again the ability of a man to know pure Being, but he has not yet decided completely on the nature of knowledge. It is to this problem that our study turns.

Jaeger calls the Theaetetus a purely scientific work, which, along with the Parmenides, contains "dry methodical ⁴⁰investigations of one definite problem". The problem is pre-

³⁹ Plato. Phaedrus., especially 246 ff. (Jowett. op. cit., pp. 250 ff.).

⁴⁰ Jaeger. op. cit., p. 176.

sented in summary form by More:

The Theaetetus debates the question, What is knowledge? Protagoras had argued that knowledge is obtained only by perception, that there is therefore no distinction between kinds of knowledge, and that the sensations of the individual are the only measure of truth. Socrates rebuts these theses, but comes to no satisfactory conclusion as to the nature of knowledge, that is of knowledge as a relation between subject and object. But he also strongly reaffirms the spiritual fact that we know it is best for a man to live in the world of Ideas, and to imitate in his conduct, so far as this is possible, the justice of the divine nature. 41

The problem is, Is perception knowledge? If man is the measure of all things, it might be that perception is knowledge, but Socrates says that if that be so, no man has a claim on superior wisdom even over the beast which has sensations. Not only so but opinions sometimes clash. Therefore, he considers the Protagorean doctrine to be inadequate. Heraclitus' theory of perception is not adequate either, for in his theory everything is moving and changing so that perceiving might just as well be called not perceiving. There are no senses by which general ideas are perceived. They must be perceived by the mind alone without the senses. Taylor regards this as the most important contribution this dialogue has yet made to the problem of whether knowledge is perception or not. He says:

41 More. op. cit., p. 313.

He [Socrates] calls attention to the, so far neglected, distinction between sensation and thought, or judgment. We can point out the bodily instruments which a man uses in seeing, hearing, touching. He sees with his eyes, hears with his ears, and so forth. Or to be still more accurate, since it is always the man, that is his $\psi\upsilon\chi\eta$, which sees and hears, we should do well to say rather that he sees and hears through his eyes and ears.

. . . . But if a man is thinking about two such sensibles of different senses, comparing and discriminating them, or counting them as "two", pronouncing them like or unlike, asserting that they are "really there", the soul is considering the matter "by herself" ($\alpha\upsilon\tau\eta\ \delta\iota'\ \alpha\upsilon\tau\eta\varsigma$) without the employment of a bodily "implement" (185d).

. . . . Now we cannot have knowledge without apprehension of a "reality" ($\delta\omicron\omicron\sigma\iota\alpha$) which is known. Hence it follows that "knowledge" is not to be sought for in the affections of our sensibility ($\tau\omicron\iota\varsigma\ \pi\alpha\theta\acute{\eta}\mu\alpha\sigma\iota$), but in the mind's reflection upon them ($\epsilon\nu\ \tau\hat{\eta}\ \pi\epsilon\pi\iota\ \epsilon\kappa\epsilon\iota\nu\omega\nu\ \alpha\upsilon\lambda\lambda\omicron\gamma\iota\sigma\mu\hat{\omega}$, 186d). And this finally proves that knowledge is not the same thing as sensation. 42

The second attempt to answer the question, What is knowledge?, in the Theaetetus, is that knowledge is true opinion. Socrates, however, questions whether there is such a thing as false opinion. In the sphere of knowledge, a thing is either known or not known; and in the sphere of being, a thing either exists or does not exist: what ground can there be for error? False opinion can arise from the erroneous mixture of sensation and thought. Plato has given some concrete illustrations of what he meant. The main one is a picture of the mind as a tablet of wax on which sense-impressions are written. The new impressions may become

42 Taylor. op. cit., pp. 338-339. Plato. Theaetetus. 142-186. (Benjamin Jowett. The Dialogues of Plato, Volume II, pp. 143-190).

43

mixed with the older impressions, and error may arise.

But not only in the realm of sense-perception but in the realm of pure thought, error can arise. This comes about, says Socrates, by the fact that in the mind there are old thoughts retained which can be mixed with the new ones. The example is the mathematician who might select the wrong number for the sum of two other numbers. Socrates however drops the argument because the problem as to why the answer given is able to be regarded as right even when it is wrong persists. True knowledge must be ascertained before the origin of error can be
44
known.

The third attempt at an answer is made by Theaetetus, who merely rehearses another man's opinion. Knowledge is said to be true opinion accompanied by an explanation or a reason ($\lambda\omicron\gamma\omicron\varsigma$), but there are three meanings to the term "explanation." It may mean the communication by speech of the thoughts which a man has, but this is not peculiar to knowledge as such. It may mean the enumeration of the parts of a thing, but this is not knowledge, for the parts may be dealt with without knowledge of the meaning of them. It may mean the true opinion of

43 Ritter. op. cit., p. 139, footnote 1.

44 Plato. op. cit., 187-201. (Jowett. op. cit., pp. 190-206). Cf. also Taylor. op. cit., pp. 339-344.

a thing along with knowing the distinguishing features that divide the thing from other things, but right opinion already implies that. The dialogue ends without a conclusion except that the conversers know that they know nothing and are therefore better and more humble men.⁴⁵

It is clear from this dialogue that Plato regarded true knowledge as being knowledge of what is real. Such knowledge cannot be in-error. Perception will not satisfy the demands of knowledge nor will true opinion even with an explanation. This dialogue is not completely negative in its discussion of the problem. It is true that what knowledge is not, is carefully given, and that what knowledge is, is reserved for later discussion. But, as Ritter says, there is no pessimism regarding the possibility of answering the problem. Also Taylor points out, pure relativism has been made untenable both in metaphysics and epistemology. Moreover, there is the strong suggestion that the proposed solutions have been inadequate because they have made the same error, namely, the erecting of a psychological criterion of knowledge when no such criterion is possible. There is also the appearance of a series of important technical terms: "quality" (ποιότης), "organ" of perception (ὄργανον), "criterion" (κριτήριον), "differentia" (διαφορά διαφορότης).

⁴⁵ Ibid. 201-210. (Jowett. op. cit., pp. 206-217). Cf. Gomperz. op. cit., pp. 155-160. Ritter. op. cit., pp. 135-140, and Taylor. op. cit., pp. 344-347.

The introduction of fundamental problems is important thought no solution is found. But Taylor says that the most important positive contribution is probably "the recognition that the discovery of the great categories both of existence and value is the work of thought, 'the soul by herself without an instrument.'⁴⁶" Plato's discussions of the problem were carried on in later dialogues.

It should be noted that there is no clear-cut expression of, or even allusion to, the theory of ideas in this dialogue. Professor Cornford feels that the absence is a deliberate device to indicate the inability to know what knowledge and error are without them.

The Theaetetus formulates and examines the claim of the senses to yield knowledge. The discussion moves in the world of appearance and proves that, if we try to leave out of account the world of true being, we cannot extract knowledge from sensible experience. 47

He continues later:

The Forms are excluded in order that we may see how we can get on without them; and the negative conclusion of the whole discussion means that, as Plato had taught ever since the discovery of Forms, without them there is no knowledge at all. 48

Robinson heartily disapproves of Cornford's position. He feels that the reason why the Forms are absent is that they

46 Taylor. op. cit., pp. 347-348. Ritter. op. cit., p. 142. For a discussion, cf. Wild. op. cit., pp. 242 ff.

47 Francis M. Cornford. Plato's Theory of Knowledge, p. 7. Cited by Richard Robinson. "Form and Error in Plato's Theaetetus", Philosophical Review, January, 1950, p. 6.

48 Ibid., p. 28. Cited by Robinson. op. cit., p. 6.

are as irrelevant to a discussion of knowledge as the discussion of what direction a gun is pointing is irrelevant to the nature of the gun. It is also possible that by this late date Plato had moved beyond the doctrine of Forms. Concerning this last assertion, the author of this paper feels that there is no adequate support of this view as will be indicated later. A modification has taken place in the later dialogues but no denial of the earlier doctrine. Not only so, in rejecting Cornford's conclusions Robinson seems to do so on the basis of his own interpretation that a theory of knowledge is not dependent upon a theory of metaphysics. This may be true for Robinson but it certainly does not seem to be true for Plato. The interpretation which Cornford offers seems to fit better⁴⁹ into the general tenor of Plato's philosophy.

⁴⁹ Robinson. op. cit., pp. 3-30.

CHAPTER VI

PLATO'S LATER DIALOGUES

Five prominent dialogues of the later years of Plato's life must yet be discussed. They are the Parmenides, the Sophist, the Statesman, the Philebus, and the Timaeus. (The Laws have no specific value for the theory of knowledge).

I. THE PARMENIDES, THE SOPHIST, AND THE STATESMAN

In the Parmenides, Plato did two things, according to More. He first showed the difficulties which inhere in any rational explanation of the doctrine of ideas and of the moral certainty which depends on this doctrine; he then affirmed the necessity of keeping the doctrine while he maintained the inadequacy of any use of reason either to prove or ¹disprove the doctrine metaphysically.

Plato, in criticizing his own doctrine of ideas, raised five or six difficulties, which he had Parmenides expound against Socrates' theory of the participation of sensible things in the ideas or forms. The first objection centers around the fact that there must be some difference between the absolute idea and the particular which partakes of the idea. The whole idea cannot exist in different objects at the same moment without becoming separate. On the other

¹ More. op. cit., p. 313.

hand, things cannot contain only parts of ideas for this would also result in absurdity. This is as yet an unanswered difficulty.

The next difficulty is: Granted the ideas an objective existence, the concept which embraces both a generality (idea) and its participating particulars must have in turn an idea above the previously mentioned generality. The concept that contains both of these ideas must have another idea corresponding to it to explain these, ad infinitum. To give the ideas conceptual status only is rejected since every thought must be of something that exists.

The third difficulty which is raised in connection with the doctrine of ideas concerns the problem of ideas as patterns with particulars as resemblances. This involves the notion that the individual must to some extent be like the idea and the idea in turn to some extent like the individual. To be alike, both the idea and the particular or individual must partake of another idea, ad infinitum. This also remains unanswered and participation by resemblance is given up.

The next argument begins with the assertion that the ideas cannot exist in men, for then the ideas would not be absolute; and thus the problem resolves into whether one can know the ideas even though their existence is granted. If the ideas exist without us, their resemblances in the sphere of man's knowledge may be related and their absolute

existences in the sphere outside of man may be related; but there can be no relation between the ideas and their resemblances in the sphere of man's knowledge may be related and their absolute existences in the sphere outside of man may be related; but there can be no relation between the ideas and their resemblances. In other words, an absolute quality, to be absolute, can never be related to a relative quality. Plato had Parmenides use the figure of the master and the slave. Gomperz explains Plato's usage in this way:

The two terms of a relation are always on the same plane. To the master there corresponds the slave, to the slave the master; but to mastership we oppose slaveship, and vice versa. Thus the real correlate of truth in itself, or the idea of truth, is the idea of knowledge, not knowledge in a human mind.²

The argument is carried on by the statement that only God can have absolute knowledge, but that being so, he cannot have knowledge of human things. Knowledge of the ideas is therefore declared to be impossible. The rational considerations had overcome the mystic contemplation.

Thus Plato has admitted the rational limitations of his system-to-date. Parmenides' place in the dialogue is one of propounder of these difficulties; Socrates has no answer to them, and so they remain unsolved. However large the difficulties may be to give a rationally air-tight expose

² Gomperz. op. cit., p. 152. Cf. Plato. Parmenides, 133b-134. (Jowett. op. cit., pp. 94-95).

of the doctrine of the ideas, Plato reveals what in this place seems to be a pure faith-venture, according to the earlier definition of faith in this paper. It is in the words of Parmenides, not of Socrates, that the apology for the doctrine has been placed by Plato. These words are extremely important:

These, Socrates, said Parmenides, are a few, and only a few of the difficulties in which we are involved if ideas really are and we determine each one of them to be an absolute unity. He who hears what may be said against them will deny the very existence of them--and even if they do exist, he will say that they must of necessity be unknown to man; and he will seem to have reason on his side, and as we were remarking just now, will be very difficult to convince. . . .

And yet, Socrates, said Parmenides, if a man, fixing his attention on these and the like difficulties, does away with ideas of things and will not admit that every individual thing has its own determinate idea which is always one and the same, he will have nothing on which his mind can rest; and so he will utterly destroy the power of reasoning, as you seem to me to have particularly noted. 3

Ritter seems to be correct in declaring what he thinks is the real meaning of Plato:

The Ideas are fixed in nature like patterns or (what I consider to be the same) the Ideas (Gattungseinheiten--generic unities) give us a firm hold and points of direction in the real world; whereas the individual sensible objects are patterned after these Ideas, and therefore partake in the universal characteristics of the forms. 4

3 Plato. op. cit., 135a. Cf. also 129 ff. (Jowett. op. cit., p. 96 and 89 ff. respectively).

4 Ritter. op. cit., p. 154.

Maximilian Beck goes even farther with this suggestion:

The suggestion I wish to make is that Plato set himself the following problem in his dialogue: The theory of Methexis--the assertion that many particular things can partake of one idea--encounters great difficulties, which cease as soon as the difference between an idea and its realization in many species and individuals is no longer considered from the point of view of the numerical differentiation of the one and the many. In other words, ideas not only exist beyond space and time, rest and motion, divisibility and indivisibility, mental subjectivity and physical objectivity, but they have an existence of their own, an ideal existence, which is also beyond the number one. ⁵

Yet reason has failed to establish this theory incontrovertibly. It is a faith-assumption which opens the way for reason to work.

The second half of the dialogue does not carry the importance for this study that the first half does. It is primarily a group of dialectical ratiocinations which Plato puts into the mouth of Parmenides. This series of contradictions perhaps out-does Zeno's. The Eleatics made great use of the dialectic, and therefore in this dialogue Parmenides gives free rein to its use. As Gomperz says, the conclusion reached is the rediscovery of the inner incompatibility of unity and plurality, which is the greatest objection to Plato's doctrine. ⁶ The objection does not seem to be reconciled. The dialogue does not have a solution to these

⁵ Maximilian Beck. "Plato's Problem in the Parmenides", Journal of the History of Ideas, April, 1947, p. 233.

⁶ Ritter has an outline of this second part of the dialogue, op. cit., pp. 162-164. Cf. also Gomperz. op. cit., pp. 153-154; Plato. op. cit., 137 ff. (Jowett. op. cit., pp. 98 ff.).

justification by Plato of his own doctrine, is the possible impression that there are no greater difficulties with the doctrine of ideas than with other doctrines, even the Eleatic doctrine.⁷ Even with this conclusion there is the alleged rational difficulties which have no solution in this dialogue.

More summarizes the content of the Sophist:

The Sophist now shows the proper use of the reason, controlled by the content of experience, when dealing with the questions raised by the metaphysical logician. First it arrives at a physical definition of the sophist; then passes to his character; then discusses the nature of being and not-being (the relative), and sets down the sophist as one who deals with the real of not-being. Meanwhile the second argument of the Parmenides, the necessity of maintaining the doctrine of ideas as an intuition superior to metaphysics, has been restated in summarized form. Ethically the Sophist shows connexions with the Gorgias.⁸

The Sophist carries on the discussion of the rational and metaphysical status of the doctrine of ideas, which was begun in the Parmenides. The rational objections of the Parmenides remain unanswered, but the Sophist contains some more or less definite conclusions regarding the metaphysical status of the doctrine of ideas.

It is interesting to note that Socrates has very little to do with the discussions in this dialogue--even less than in the Parmenides. The main speaker is a stranger

⁷ Ritter. op. cit., pp. 165-166. Cf. Wild op. cit., pp. 205 ff. and Taylor. op. cit., Chapter XIV, pp. 349 ff. This is also somewhat his opinion. Cf. especially pp. 350-351.

⁸ More. op. cit., pp. 313-314.

who, in his youth, was closely connected with the Eleatic school. The general purpose of the stranger's questions and discourses is to find a precise definition of a sophist. After a discussion of his many callings, the stranger suggests a chief characteristic of the sophist which unites these callings. This characteristic is ⁹disputation and the teaching of disputation. The sophist disputes about all things but he cannot know all things; therefore, he must make the appearance of knowledge. He is an imitator in that he uses imitation arguments for imitation truth.

But the problem that now is apparent is, how such falsehood can exist. This introduces the whole problem of being and not-being. The unreal is not itself real, yet it is really unreal. If Being is a unity, as the Eleatics maintain, then the problem lies in explaining the existence of the particular, the reality of the unreal. As has been seen before, this is the ¹⁰problem which the Eleatics never satisfactorily answered. The introduction of this problem in this dialogue indicates also Plato's break with the Eleatics. Gomperz feels that the entire positive content of the ¹¹Sophist was intended to show that very break.

⁹ Plato. Sophist. 232b. (Jowett. op. cit., p. 238).

¹⁰ Cf. Chapter III.

¹¹ Gomperz. op. cit., p. 173.

The stranger turns his argument against the materialists, who hold that the things grasped by the senses are real but who do not have a place for the higher realities of the mind. His argument is turned next to the idealists, who distinguish between the sensible objects which constantly move and the Being which is always at rest. Both rest and motion are necessary characteristics of reality.

The problem that now arises has to do with relationships which rest and motion sustain to each other. Rest and motion both exist, but this does not mean that existence is a tertium quid which includes rest and motion. If it were a third thing it would be neither at rest nor in motion and that is absurd. Therefore, the whole of existence must be the participation of rest and motion. If there were no participation, rest and motion would not be; this would be to maintain a contradiction. But the participation must not be indiscriminate or else there would be times when rest would move and movement would rest. This would be to maintain a contradiction also. The only hypothesis left is participation or communion of some with some, that is, that being is made up of part motion and part rest. It is this thesis which Plato attempted to work out in the rest of the dialogue.

The importance that this dialogue holds in a consideration of the Platonic theory of ideas and their epistemological ramifications lies at the point of this partial break-down

of the middle partition between the ideas and the particulars. The frame-work of each is basically the same. The dualism seems to break down in part into a hierarchy of being, which exists from absolute Being through all Becoming, and which permits a more fluid interpenetration and interdependence of things with each other.

Gomperz indicates that the epistemological problems are not solved as yet, but he says that Plato regarded their solution as only obtainable in the area of ontology. It is in this area that he has labored in this dialogue. However, in the same way that reality has lost its Eleatic rigidity, so also have the concepts. Mutually exclusive ideas are denied, but in between the extremes of exclusiveness there is much room for such things as opinion and conjecture, which met with difficulty in the older rigidity of alternatives of thought.¹²

Brief mention should be made of the difference of opinion which exists between scholars as to whether this dialogue represents a change in Plato's thinking or not. Gomperz, as has been seen, indicates that it does; and that when the stranger levels his argument against the idealists, it was Plato's way of indicating the inadequacies of

¹² Gomperz. op. cit., pp. 174-176. Cf. Taylor op. cit. pp. 376-392. Arthur Kenyon Rogers. A Student's History of Philosophy, pp. 96-97.

his earlier thought.¹³ On the other hand, Ritter recognizes this as a possibility, but he feels that it is more probable that Plato was protesting against a misunderstanding of his doctrine of ideas. The idealists or "friends of the Ideas" in the dialogue are probably those who are in partial sympathy with the doctrine but misunderstand it. These¹⁴ were possibly the Megarics. In either case, the Platonic doctrine is clearly indicated as it stood in the probable¹⁵ later life of Plato.

The Statesman actually forms another section which could be fastened onto the Sophist. The stranger is again the main speaker and the dialogue is another attempt at a definition. This time a precise definition of the statesman is desired, but this definition is not the concern of this study. The minute process of defining by classification is interrupted by a question as to whether there is no short-cut method of defining. This leads to a philosophical discussion concerning the art of measurement. It is this discussion which is of importance in distinguishing Plato's theory of knowledge. The art of measurement is divided into

¹³ Gomperz. op. cit., p. 172.

¹⁴ Ritter. op. cit., pp. 175 f.

¹⁵ Plato. op. cit., (Jowett. op. cit., pp. 221 ff.). Cf. also John Burnet. Greek Philosophy, Part I, Thales to Plato, pp. 273 ff. The latter discusses the Platonic logic. Cf. also Wild. op. cit., pp. 273 ff.

two parts: the first has to do with the "relativity of greatness and smallness to each other"; the second has to do with the relativity of things to the mean or ideal standard. Things can be measure by these two ways. The standards involved are extrinsic and relative in the former instance and intrinsic and absolute in the latter. ¹⁶ The stranger notes that many feel that the art of measurement is universal, but there is more to the problem than that. He shows that these persons do not distinguish the two types of measurement:

But these persons, because they are not accustomed to distinguish classes according to real forms, jumble together two widely different things, relation to one another, and to a standard, under the idea that they are the same, and also fall into the converse error of dividing other things not according to their real parts. Whereas the right way is, if a man has first seen the unity of things, to go on with the enquiry and not desist until he has found all the differences contained in it which form distinct classes; nor again should he be able to rest contented with the manifold diversities which are seen in a multitude of things until he has comprehended all of them that have any affinity within the bounds of one similarity and embraced them within the reality of a single kind. ¹⁷

This argument fastens logically with the argument regarding the doctrine of ideas in the Sophist. The ideas, which had been the objects of contemplation above the world of sense and appearing only to reason, have in these later dialogues

¹⁶ Plato. *Statesman*. 283c. (Jowett. *op. cit.*, p. 311). Cf. Taylor. *op. cit.*, p. 399.

¹⁷ Ibid. 285a. (Jowett. *op. cit.*, pp. 312-313). Italics are the author's.

played a more prominent role in the world of becoming. The Sophist indicates that there are certain elements of Being in Becoming; the Statesman indicates that the ideas give form to the Becoming. There are certain constants which exist in the objects of sense-experience and which make sense-experience possible. Ritter says:

It can mean nothing else but that in the process of Becoming there is something permanent, something which does not change, that a law pervades it and that Becoming, therefore, has the characteristics which the Sophist (and in a veiled manner already the Theaetetus) considers to be the fundamental features of reality. Art or applied science observes this necessity, or that which remains the same in the changing states, i.e., the law of change or development (or if one prefers, the manifestation of its effects); the existence of art depends on this law. For only the permanent, the unchanging can be apprehended, never the changing which disappears the moment it comes into Being. And in so far as we apprehend the unchanging within the change and make it the basis for a true conception, it appears as an Idea. ¹⁷

Gomperz says that the concept of the participation of things in ideas is left behind, and that the former "self-existent archetypes" pass into the background. However, Ritter maintains that the different status which the ideas now have to the particular world of experience does not change their archetypal position in the world of abstract Being. ¹⁸ It is clear however that ideas are no longer only isolated to the realm of pure Being and pure Reason. There

¹⁷ Ritter. op. cit., p. 184. Cf. Taylor. op. cit., pp. 393-407.

¹⁸ Gomperz. op. cit., p. 181; Ritter. op. cit., pp. 184 ff.

is more of a one-ness to Plato's world with Being underlying Becoming as well as existing in pure form, and by the way the dialogue is carried on, it seems that reason and perception work hand-in-hand, instead of in isolation, indicating the unity which underlies all diversity.

V. THE PHILEBUS AND THE TIMAEUS

As More indicates, the Philebus deals with the problem of pleasure and pain, but the problem is set against a metaphysical background. It is this background that is the most important for this study. Socrates maintains that wisdom is the good; Philebus and Protarchus maintain that pleasure is the good. In searching for the true position, Socrates takes the lead in the dialogue and proposes that the pleasurable life and the intellectual life should both be studied in isolation from each other. The result is that neither is the good by itself.

The conclusion at this point is that the pleasurable life and the wise life must be inter-mixed. As soon as the questions, "How?" and "How much?", appear the problem becomes a metaphysical one. Four categories are proposed by Socrates into which all existence fits: (1) the infinite or the unlimited ($\alpha\pi\epsilon\iota\rho\omicron\nu$); (2) the finite or the limited ($\pi\epsilon\rho\epsilon\varsigma$); (3) the union of the two or the mixture ($\mu\iota\kappa\tau\omicron\nu$); and (4)

the cause of the mixing. Pleasure belongs to the first class, the infinite, because it can be more or less; the same holds for pain. But to what class does wisdom or mind belong? Socrates answers by asserting that the world is governed by mind, not by change, that there is a universal principle which is intelligent. Since one's body is dependent upon the universe for the elements of its existence, so one's mind is dependent upon and comes from the soul of the Universe, which is the Supreme Cause. Therefore, mind belongs to the fourth class, the cause. However, later on Socrates places pleasure of the excessive type in the first class, but moderate pleasure has a limit and so belongs to the second class, the finite. Not only so, there are mixed pleasures--pleasure mixed with pain. But the true pleasures are unmixed and are given by beauty of form, of color, of sound, by sweet smells and by knowledge. The purest sort of wisdom, on the other hand, is dialectical knowledge. The grand conclusion is that pleasure is not the first good. The order of goods is: (1) measure, (2) symmetry, (3) mind and wisdom, (4) sciences, arts, and true opinion, and (5) pure pleasure.¹⁹

Gomperz suggest that this dialogue is more inconsistent than it is dark and profound.²⁰ Yet it shows Plato's

¹⁹ Plato. Philebus. (Jowett. op. cit., pp. 343 ff.).

²⁰ Gomperz. op. cit., p. 198.

grappling with the rational problems introduced in the Par-
menides, with the metaphysical status of the doctrine of ideas,
 and with the association between ideas and between ideas and
 concrete particulars. It seems that Plato is attempting to
 give rational grounds for what was regarded as an ungrounded
 philosophical necessity in the Parmenides. The Sophist
 indicates his conclusion that there are certain elements of
 Being in Becoming; the Statesman indicates his conclusion
 that the ideas give form to the Becoming; and the Philebus
 indicates his conclusion, in part at least, that ideas have
 relationships among themselves and with perceptual things.
 This plurality of ideas is so inter-connected that one idea
 cannot be conceived in isolation. As Ritter says;

Every conception, every ideational act of thought is a
 mixture of unity and plurality; so we may say that to
 be absorbed in and bound up with another thought-content
 is also essential for the Idea, which is the basis for
 every true conception in that the latter apprehends the
 former. 21

Applying this to the four categories of existence, Ritter says:

The reality of the unlimited consists only in the fact
 that it serves as the material for the forming activity
 of the limited; the reality of the limited consists in
 the fact that it imposes form on the formless or un-
 limited; the reality of the mixed consists in the fact
 that these two classes which may be separated by abstrac-
 tion have been intimately united and are given in the
 mixed; the reality of the cause consists in the fact
 that the process of development, through which this alone
 could and can happen is not merely known as a logical
 cause of an event, but is initiated by an impact, the

21 Ritter. op. cit., p. 197.

actuality of which is put outside the whole action of causally connected events at which we can arrive by a mere logical procedure and by tracing back the whole process. 22

Thus, Ritter maintains that the ideas must be classified in these four ways:

If all reality is divided into these four classes, and if in accordance with the earlier dialogues, the reality of Being consists in the Ideas, then they must be classifiable into the four classes of the infinite (unlimited), the finite (limited), the "mixed", and the cause. And even if through further investigation it should be established that, as e.g., Zeller believes he can prove, the Idea is not identical either with the unlimited or with that which sets limits, it must nevertheless be maintained that there is an Idea of the one as much as of the other (and also of its various sub-types). Otherwise both these Ideas (together with the Idea of the "mixed" and that of cause) would be wrong, incorrectly formed abstractions. Therefore, there must not only be an Idea of the cause but also of what is caused (or the mixed), i.e., that which through Becoming has attained a final form of Being. 23

Burnet maintains what he calls "the traditional view", namely, that the ideas refer to that which limits. He also mentions Jackson who regards the ideas as belonging to the mixed class. 24 Yet Ritter's arguments seem to be the most convincing. If the ideas are the things that limit, they have no existent status themselves. If the ideas belong to the mixed class, the continuity between this dialogue and Plato's earlier

22 Ibid., pp. 197-198.

23 Ritter. op. cit., p. 196.

24 John Burnet. Greek Philosophy, Part I, Thales to Plato, p. 332.

thought seems to be broken. The ideas, if Ritter is correct, are explained as existing in an logically adequate relation with each other and with the particulars. This seems to have been Plato's desire in these latter dialogues.

Taylor says that this four-fold division of reality is so devised to make the problem of the forms irrelevant. His conclusion is that the forms have no place in this classification.²⁵ Yet further on in his book, Taylor says:

As the Philebus had taught us, we may arrive at a "form" in either of two ways; we may start with several different $\epsilon\lambda\delta\eta$ as many and seek to reduce them to unity by showing that they are all special determinations of a more general "form" and discover more specific "forms" within it; whichever route we follow, we presuppose as already familiar the notions of a form and of forms in the plural. "A" and "some" will be ultimate indefinables.²⁶

Thus the forms are involved in this four-fold division.

A possible solution to the problem of whether the forms or ideas can or cannot be associated with any or all of the four categories may be found in Plato himself. The four categories are not absolute but are relative to each other. It is clear from Plato's treatment of these that they are not four categories of existence but rather that existence is made up of these four categories. One lacking would make the whole system collapse. Therefore, it is safe to say that the forms cannot exist in isolation. Granted

²⁵ Taylor. op. cit., p. 417.

²⁶ Ibid., pp. 509-510.

the ideas behind these elements, there is an idea of the existential resultant of the union of these elements. As the elements cannot exist only as combined, so the ideas cannot exist except in cohesion. Aristotle says in this connection: "Since the Forms were the causes of all other things, he [Plato] thought their elements were the elements of all things. As matter, the great and the small were principles; as essential reality, the One. . . ." 27

The problem now is, Do these necessarily-integrated ideas have an actual existence in nature or are they merely the logically necessary concepts of mind? This question was faced by Plato in the Timaeus. This dialogue contains some of Plato's speculations in cosmogony. It is with caution that Timaeus, the main speaker, constructs his theory of the universe. He warns of the lack of complete certainty which must always attend such speculations and he can only hope for probabilities. God formulated the world after an eternal pattern. The world was made a sphere which was made to revolve in a circle. At the center, God placed the soul which was created first. The soul is made of the indivisible (the Same) and the divisible (the Other) mixed with Essence; thus the soul utters the sameness or otherness of any essence she comes in contact with. When she contemplates the sen-

27 Aristotle. Metaphysics. 987b19-21. (Richard McKeon. The Basic Works of Aristotle, p. 701).

sible world, she attains true opinion; when she contemplates the rational world, she attains knowledge. The creator created gods who in turn form the mortal bodies of men and the lower creatures; the creator furnished the immortal principle of the soul so that men have the same elements as the universal soul. Each man is placed on his star and shown his life on earth. The ones who live well will return to their stars; those who do not, will be reborn in a lower form. The soul in its infancy on earth is overcome by the body. It can only regain its proper place by education. The uneducated soul is not rational.

At the basis of this cosmogony there are three principles: (1) an intelligible pattern; (2) the copy which is created; (3) and space which has no form but can receive form. The last is the receptacle for created things. The elements, out of which all things are made, are only the changes in space which result from the impress of ideas. These ideas must have objective existence, for knowledge and true opinion differ and there must be a difference between the objects apprehended by them.

Timaeus spends much time explaining the creation of objects; later he turns his attention to that which perceives these objects. The first to be considered are the sensations which the whole body feels, such as hot, cold, light, heavy, etc.; the second to be considered are the sensations of the

particular organs of the body, such as the tongue, the nose, etc. Sensation arises when an object comes in contact with an organ of sense; the motion of the object is transmitted to the soul and produces either pain or pleasure. These elements can be called necessary elements of creation, but there is also a divine cause for which man should seek.

Timaeus continues by describing the functions of the body. Toward the end of the dialogue, he turns to a discussion of the soul and how it should be tended. The three parts of the soul are the divine element, desire and ambition; these should be exercised according to their proportionate value, but this is especially true of the divine element, for it is by it that a man attains immortality. The motions of this divine element, the reason, have their counterparts in the universe:

Now there is only one way of taking care of things, and this is to give to each the food and motion which are natural to it. And the motions which are naturally akin to the divine principle within us are the thoughts and revolutions of the universe. These each man should follow, and correct the courses of the head which were corrupted at our birth, and by learning the harmonies and revolutions of the universe, should assimilate the thinking being to the thought, renewing his original nature, and having assimilated them should attain to that perfect life which the gods have set before mankind, both for the present and the future. 28

28. Plato. Timaeus. 90 (in part) (Jowett. op. cit., p. 66). For a complete discussion, cf. the entire dialogue in Jowett. op. cit., pp. 3 ff.

In the Timaeus, there seems to be a synthesis of²⁹ Plato's earlier thoughts with his later ones. The term "idea" is re-introduced. He introduced corporeal Necessity as the material upon which Mind or the Divine works to cause things to be. This Necessity is often a hindrance, but nothing would exist except for it. This seems to be a renewed emphasis upon the dualism of Plato's earlier dialogues, but, as Burnet says, it is not so much an opposing force, although it hinders the complete purposes of the Divine Mind, as it is an inevitable concomitant of existence. Thus the sensible world is not the perfect copy of the original but is at least an image of the intelligible.³⁰ There is³¹ a hierarchy of being from the perfect original, which is known by reason, down to the most changeable copy. The universe is more of one fabric in Plato's later dialogues.

²⁹ Ritter suggests this. Cf. op. cit., p. 223.

³⁰ Burnet. op. cit., pp. 341-342 and 342-349.

³¹ The term "hierarchy" was adopted by the author of this paper. It was originally proposed with some hesitation as a possible comprehensive term for Plato's modified doctrine of ideas. However, in later study, the author discovered the same term used by such an outstanding thinker as Gregory Vlastos in his critical discussion of Wild's book, Plato's Theory of Man. Wild is an outstanding Aristotelian who seems in this book to have departed to the Platonic camp in his theory of politics. It is this departure which Vlastos decries: "One could even go a step further and say that the theory of forms was itself an effort to express the logical unity of the 'scattered' particulars. The effort failed. The concept of community was submerged by the concept of hierarchy. The two are nonetheless distin- (continued)

The ideas exist as pure forms but also in all copies. This is important for Plato's theory of knowledge, for the existence of unchangeable realities form the basis for correctly formed concepts. The dialogue maintains a realistic relation between the object and the perceiver and likewise between pure Being and the pure concept. The former may possibly be in error at times and never carries complete certainty; the latter is never in error and is completely certain. Thus that which is the most truly real is the most truly knowable.³² By the comparisons of sensible and individual phenomena, one arrives at a concept. The objective basis for this experience is the world which is so arranged in a fixed and orderly way so that ideas are in relationships.

But Plato held a reservation as to the complete certainty of this cosmological setup which coordinates with the logical setup of the mind. He constantly maintained that the knowledge of the eternal pattern is certainty while the knowledge of the copy can only be a probability and does not carry the weight of absolute certainty. This itself is of the na-

³¹ (continued) guishable. Had the author made the distinction he would have furthered our quest for a democratic philosophy today. The answer to equalitarian atomism is not hierarchic community; it is equalitarian community." (Gregory Vlastos. "Plato's Theory of Man," Philosophical Review, March, 1947, p. 193.)

³² Ritter. op. cit., pp. 211 ff. and especially Plato. op. cit., 51b ff. (Jowett. op. cit., pp. 31 ff.).

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ture of a faith-venture.

It has been asserted in this paper that the later dialogues of Plato, as far as their ontological and epistemological content is concerned, were attempts at solving some of the problems raised in the Parmenides primarily regarding the relation of ideas to particulars and to each other. Along with this effort was a possible partial amelioration of the earlier doctrine in the softening of the dualistic aspects of the earlier statements. However, this whole thesis has been challenged by Henry Jackson and R. D. Archer-Hind, who try to account for differences between the Republic and the Timaeus, for instance, on the basis of an interpretation which regards the later dialogues as showing the forms to be "outside" of the realm of sensible things entirely.³⁴ It can be readily seen that this theory would reverse the entire movement and regard the latter dialogues as hardening rather than softening the dualism of the former dialogues. This theory needs some critical investigation. This investigation is reserved for this point because the issues involved are more apparent in the Timaeus as compared with earlier dialogues. The earlier Platonic dialogues, according

³³ Plato. op. cit., 29. (Jowett. op. cit., pp. 13-14).

³⁴ Henry Jackson. "Plato's Later Theory of Ideas," Journal of Philology, Volumes X-XII and R. D. Archer-Hind. "Introduction." Timaeus. Cited by A. E. Taylor. A Commentary on Plato's Timaeus, pp. 27 ff.

to the arguments of Jackson and Archer-Hind, mention the forms as in or present to the things which the senses perceive--that is, the sensible objects partake of or participate in them. In the Parmenides, Plato subjects his own theory to refutation. And so in the Timaeus nothing is found concerning "participation" in but only "imitation" of the forms.³⁵

However, Aristotle insisted that the distinction between participation and imitation was never made in the Academy.³⁶ One may question Aristotle's conclusion that there was no essential difference between Pythagoreanism and Platonism while accepting his word on the use of these two terms. He might be mistaken in his judgment while he would hardly misrepresent a fact. Taylor suggests two reasons why Aristotle can be trusted in his statement of this fact: (1) His language agrees with the Parmenides itself where "imitation" is used as a possible interpretation of "participation;"³⁷ (2) Both terms were used in the Academy even down to the time of the Neo-Platonists. Thus it seems that no actual substitution of a theory of "imitation" for a theory of "participation" ever took place. The Parmenides therefore indicates problems to be dealt with, not a theory to be overthrown. If

³⁵ Cf. loc. cit.

³⁶ Aristotle. op. cit., 987b10-14. (McKeon. op. cit., p. 701).

³⁷ Cf. Plato. Parmenides. 132. (Jowett. op. cit., pp. 92-94).

this differentiation between the use of these terms is false, then the theory proposed by Jackson and Archer-Hind is inadequate. The use of such terms as "copy" and "imitation" in the Timaeus does not therefore mean the establishment of a theory of the universals as exterior and above the particulars, but it does mean that this theory of the external universals (forms) was more-or-less Plato's doctrine of the ideas from the beginning. The relation of these universals to the particulars which imitate or participate in them was the problem which Plato worked on in these later dialogues. It is doubtful whether this involved any critical change in his theory. As has been noted, the changes necessitated were such as to soften the dualism rather than obliterate it. The universals still exist above the particulars but not in an isolated and simple way. They are inevitably involved with each other and with the particulars.

³⁸ Cf. Friedrich Ueberweg. History of Philosophy, Volume I, pp. 115-116 and Rogers. op. cit., pp. 91 and 93.

CHAPTER VII

CONCLUDING CONSIDERATIONS ON PLATO

The philosophy of Plato, though being distinctive in many areas, is clearly at one with the basic assertions of the major line of Greek thinkers as to the nature of knowledge. He was rationalistic and his rationalism seems to have been based on the three-fold faith-venture, as it has been called in this study, which is evident in the cosmologists and Socrates. This three-fold assertion was (1) that there is a unity to the universe; (2) that this unity is maintained by fixed laws; and (3) that this unity can be known by the natural reasoning powers of man. These three postulates shine out of the entire movement of Plato's philosophy.

The unity of the universe he found in the forms or ideas. The entire movement of his ontological thought seems to have been in the asserting of the forms as primary to philosophy, as in the *Parmenides*, and then in the later dialogues in the attempt to solve the problems of the relationship of sensible objects to the a priori forms and their relation to each other. The forms are asserted to be constant though not absolute in the sense of existing aloof from the world of experience.

The third basic assertion is that natural reason can find this unity. This can be seen in Plato's oft-repeated assertion, perhaps best seen in the Republic, that the levels

of being have co-ordinate levels of knowing. That the forms are known with certainty by the mind while the "copy" can only be described as probable, as maintained in the Timaeus itself, indicates that the unity of the universe is knowable.

Thus Plato's basic assertions are at one with early Greek critical thinking. Not only so, there is a definite linkage between Plato and Socrates; Aristotle also indicates a close relationship between Plato and the Pythagoreans, and even in certain areas with Cratylus and Heraclitus. Aristotle says in the Metaphysics:

After the systems we have named came the philosophy of Plato, which in most respects followed these thinkers, but had peculiarities that distinguished it from the philosophy of the Italians. For, having in his youth first become familiar with Cratylus and with the Heraclitean doctrines (that all sensible things are ever in a state of flux and there is no knowledge about them), these views he held even in later years. Socrates, however, was busying himself about ethical matters and neglecting the world of nature as a whole but seeking the universal in these ethical matters, and fixed thought for the first time on definitions; Plato accepted his teaching, but held that the problem applied not to sensible things but to entities of another kind--for this reason, that the common definition could not be a definition of any sensible things, as they were always changing. Things of this other sort, then, he called Ideas, and sensible things, he said, were all named after these, and in virtue of a relation to these; for the many existed by participation in the Ideas that have the same name as they. Only the name 'participation' was new; for the Pythagoreans say that things exist by 'imitation' of numbers, and Plato says they exist by participation, changing the name. But what the participation the imitation of the Forms could be they left an open question. ¹

¹ Aristotle. op. cit., 987a29-987b13. (McKeon. op. cit., pp. 700-701).

As has been said before, the testimony of the student Aristotle to what the teacher Plato taught does not need to be questioned, but it must be realized that Aristotle was building his own case and therefore may not give a completely fair picture of what Plato meant.² Therefore, there may be and certainly seems to be a wider divergence between Plato and the Pythagoreans that Aristotle implies. It is to be noted that the Pythagorean categories of the Limited and the Unlimited differ from the Platonic categories of the One and the Many. Of course, the Pythagoreans and Plato had the category of the mixed, but there is a difference, as seen in Plato's dialogues, between the mixture of two equivalent principles in the Pythagorean theory and the mixture of Being in the changing objects of sense in the Platonic theory; this latter dualistic mixture is not the combination of equivalents for Being alone is an eternal principle. It is true that the categories in the Philebus seem more Pythagorean than Platonic, but even here there is the addition of the category of the Cause as there is the addition of Space in the Timaeus. Not only so, the category of the Unlimited is not the same Unlimited as in Pythagorean thought. Plato's Unlimited is not an eternal principle but a duality of great-and-small, that is, it is the expandable or the contractable; it can be made larger or smaller. It is only in this sense

² Taylor. op. cit., footnote 1, p. 31.

of freedom of construction that Plato uses the term "Un-
³limited."

This brings up the question as to whether or not Plato had a dualism. Albert Schwegler argues that Plato's theory includes two worlds, a world of sense and a world of ideas, and that he does not give a consistent nor satisfactory theory of the relation of the two worlds. This is a common criticism from the Aristotelian standpoint. Schwegler finds a contradiction in the fact that Plato on one hand grants the reality of becoming while on the other hand he declares the ideas to be alone real. To argue his point he indicates a passage in the tenth book of the Republic where Plato protests that the sensuous is not beënt, while in the Timaeus he conceives of matter exhibiting resistance to the creative power of the ideas. However, most of Schwegler's references to this divergence from the statement in the Republic--he gives several beside the Timaeus reference given here--appear in
⁴the later dialogues. The whole weight of this study has been in favor of some sort of modification of Plato's views in the later dialogues. The problem, it has been seen, is different. In the earlier dialogues, the doctrine of ideas is developed.

³ Cf. Plato. Philébus, 23 ff. (Jowett. op. cit., pp. 355 ff.), and Taylor. op. cit., p. 30. Taylor asserts that Aristotle himself made this distinction between Plato and the Pythagoreans.

⁴ Schwegler. op. cit., pp. 78-80. Fernand Van Steenberghe agrees that Plato is too dualistic although he does not point out any contradictions. Cf. his Epistemology, pp. 53-54.

The Parmenides is the turning-point to a consideration of the ideas in relation to each other and to the world of experience. The later dialogues reveal a softening of the more strict dualism into what is here termed a "hierarchy" of existence. The earlier dialogues probably tended to give a nonbeing status to the world of sense, although even in some of them there was the assertion of the dialectical method which begins with the world of experience and moves upward to the world of ideas. Here already was a hint of what was to become more specific. In the later dialogues, an existent status was given to matter or the things of sense but not in a strict dualistic way as with the Pythagoreans, for that which made the empirical world existential was the fact that there were elements of Being in the world of Becoming. Returning to the fact of the use of the dialectical method to know the world of ideas, John Wild argues that no breach exists between the world of Becoming and the world of Being. He says:

The realm of forms cannot exist apart by itself until it becomes a complete and substantial duplicate of our world. Hence we shall have two complete and independent, substantially existent worlds, one concrete and material, the other abstract and unchanging. Now the question is, to which world does human knowledge belong? Authentic knowledge is clearly of the changeless form, but we are obviously in the material world. Surely if anyone is to have knowledge of the pure forms, it will be some divine being dwelling in the perfect world. But in this case, we shall be utterly deprived of genuine knowledge, and cease to be men. But if we do have it, we shall be gods, and cease to be men. The chasm or χωρὶς between concrete things and forms, which is involved in the present-day picture of Platonism, is, according to Plato himself,

incompatible with the actual existence of human knowledge. 5

He continues in a footnote:

As Plato suggests, it is really knowledge which makes the $\chi\omega\rho\iota\sigma\mu\acute{o}\varsigma$ impossible. If we possess genuine knowledge as distinct from opinion, then we know the forms here in this world. If we do not know them, then there is no refuge from scepticism. All is flux and knowledge is impossible. 6

Wild's argument helps to substantiate the statement that Plato's world is more hierarchal than dualistic in the strict sense.

The Heraclitean element in Plato's thought is seen in the changeableness of the world of experience which Aristotle stated that Plato maintained even in his later years.⁷

However, Plato incorporated this concept of the world of change and becoming into his philosophical system in an entirely different way than did Heraclitus. The unity of the universe is the principle of Change itself for Heraclitus, and though things appear to be permanent yet reasoned reflection shows them not to be so. Plato also distrusted the report of the senses alone and urged the necessity of reasoned reflection, but he did not do away with the semblance of permanence and affirm the principle of Change. This

5 Wild. op. cit., pp. 216-217. Cf. Plato. Parmenides, 133-135. (Jowett. op. cit., pp. 94-97).

6 Ibid., footnote 27, p. 217.

7 Cf. footnote 89 of this chapter.

is a limitation of the universal to the various particulars. Thus, unlike Heraclitus, Plato asserted the universal above,⁸ though not isolated from, the particular.

Socrates, according to Aristotle, found the universal definition within the particular world of ethical experience. Thus he was like Heraclitus in finding the universals within the particulars but unlike him in that he affirmed the existence of the permanent, changeless basis for existence.⁹

Rogers says: "Socrates had pointed out where this fixity is to be looked for. It is present, not in the flux of sense-experience, but in thought."¹⁰ Socrates seems therefore to have maintained a conceptual fixity. Plato with his expanded interests in the realm of cosmology and ontology thought this to be inadequate. Thus, the ideas were conceptually constant only because they were ontologically and objectively real, not in the world of sense for that world is constantly in flux, but above it.¹¹

When one comes to co-ordinate what has been distilled from the earlier and later dialogues of Plato in such a way as to see the full rationale of Plato's doctrine of ideas,

⁸ Cf. Rogers. op. cit., p. 88.

⁹ Cf. footnote 88 of this chapter.

¹⁰ Loc. cit. (Rogers).

¹¹ Ibid., pp. 88 ff. Cf. also Walter Pater. Plato and Platonism, pp. 163-164 and W. L. Stace. A Critical History of Greek Philosophy, p. 183.

one faces the problem of what Plato was really trying to do. Many of these ontological and epistemological movements of thought which one thinks he sees are often, though not always, seemingly secondary considerations within the mind of the writer of these dialogues. For instance, the Philebus deals with the problem of whether pleasure or wisdom is the most important. It all seems to be playful banter, yet it is set against a definite background of philosophical thought. Were it not for recurring patterns and extended thinking in specific directions which is seen extending over several dialogues, one could not be sure whether Plato was serious in his attempts or whether he was merely exploiting the famous dialectical form of writing and argument.

Two men, at least, have serious questions as to whether Plato really was metaphysical or only methodological in his development of the doctrine of ideas. Paul Natorp and J. A. Stewart say that Plato's purpose was essentially the latter.¹² However, as Douglas Clyde Macintosh points out, Plato lived in a day when the vindication of knowledge was a pressing problem. Also it seems that Plato's faith was placed in the dialogue, his methodology (actually the dialectic), as the correct and adequate means of reaching the truth. A correctly formed concept was the equivalent of an

¹² Paul Natorp. Platos Ideenlehre and J. A. Stewart. Plato's Doctrine of Ideas. Cited by Douglas Clyde Macintosh. Problem of Knowledge, pp. 81 ff.

objective fact for Plato. The fact is, says Macintosh, that Natorp and Stewart are both Neo-Kantians and are perhaps trying to read into Plato a purely conceptual world of ideas on premises such as these: "Things are ideas; ideas are predicates; predicates are thought-constructs. The conclusion in the neo-Kantian doctrine: Things are thought-constructs."¹³

In this study, as well as in many other studies of Plato it is felt that no substantial evidence is found for making Plato's ideas purely conceptual. Sense-objects as well as the forms are not regarded as mental-constructs. What is said is that concepts are true and accurate knowledge of objective Being, while percepts are liable to the errors of opinions¹⁴ and can never have more than probable certainty. Taylor in his book, Platonism, makes this very clear:

The ideai, "figures," "patterns," "forms" of which we read in Plato are in no sense "states" or "processes" of minds, nor is their existence supposed to depend on the existence of any mind whatever. The Forms are just those absolutely determinate objects of thinking which, in Plato's language, "are" and do not "become," and which it is the business of science to know completely. We may, if we like, call them "concepts," provided that we remember two things: (1) they are that which is known, not the act or process of knowing it; (2) their existence does not depend on that of a mind which "conceives" them; minds know them but do not make them. ¹⁵

¹³ Douglas Clyde Macintosh. The Problem of Knowledge, p. 83.

¹⁴ Ibid., pp. 84-85 and Frank Thilly. A History of Philosophy, pp. 62 ff.

¹⁵ Alfred Edward Taylor. Platonism and Its Influence, p. 34.

Pater makes it even stronger:

Hitherto, in the Socratic disputations, the ideas had been creations, serviceable creations, of men's thought, of our reason. With Plato, they are the creators of our reason. . . . For Plato, they are no longer, as with Socrates, the instruments by which we tabulate and classify and record our experience. . . but are themselves rather the proper objects of all true knowledge, and a passage from all merely relative experience to the "absolute". . . .

That, then, is the first stage, or plane, of Platonic transcendentalism. Our common ideas, without which, in fact, we none of us could think at all, are not the consequence, not the products, but the cause of our reason in us: we did not make them; but they make us what we are, as reasonable beings. 16

To summarize, Weber lists three characteristics of the ideas: (1) they are real beings; (2) they are more real than sense-objects; and (3) they are the only true realities for the objects of sense have a borrowed existence. 17 Ueberweg provides an excellent review of the theory of ideas:

The Platonic philosophy centers in the Theory of Ideas. The Platonic Idea (*Idea* or *Εἶδος*) is the pure, archetypal essence, in which those things which are together subsumed under the same concept, participate. Aesthetically and ethically, it is the perfect in its kind, to which the given reality remains perpetually inferior. Logically and ontologically considered, it is the object of the concept. As the objects of the outer world are severally known through corresponding mental representations, so the idea is known through the concept. The Idea is not the essence immanent in the various similar individual

16 Pater. op. cit., pp. 167-168. Cf. also Zeller. Greek Philosophy, pp. 141-144 and Wilhelm Windelband. History of Philosophy, p. 118.

17 Alfred Weber. History of Philosophy, p. 61.

objects, as such, but rather this essence conceived as perfect in its kind, immutable, unique, and independent, or existing per se. The idea respects the universal; but it is also represented by Plato as a spaceless and timeless archetype of individuals. The more Plato in his speculation and in his language gives place to his fancy, so much the more does he individualize his Ideas; the more he confines himself to pure cogitation, so much the more does he approach the apprehension of the idea under the form of universality. Let the individuals which share in the same essence or belong to the same class, be conceived as freed from the limits of space and time, from materiality and individual deficiency, and so reduced to a unity, which is the ground of their existence, and this unity (objective and real, not merely thought by us through abstraction) will be the Platonic Idea.

To express the relation of individuals to their corresponding ideas, Plato employs the term "participation" ($\mu\epsilon\theta\epsilon\chi\iota\varsigma$), and also "imitation" ($\mu\iota\mu\eta\sigma\iota\varsigma, \delta\mu\omega\iota\omega\sigma\iota\varsigma$). The idea is the archetype ($\pi\alpha\rho\acute{\alpha}\delta\epsilon\iota\gamma\mu\alpha$), individual objects are images ($\epsilon\iota\delta\omega\lambda\alpha\varsigma, \delta\mu\omega\iota\omega\mu\alpha\tau\alpha$); the idea, though existing independently ($\alpha\upsilon\tau\acute{o}\ \kappa\alpha\theta'\ \alpha\upsilon\tau\acute{o}$), has also a certain community ($\kappa\omicron\iota\nu\omega\nu\iota\alpha$) with things; it is in some sense present ($\pi\alpha\rho\omicron\upsilon\sigma\iota\alpha$) in them; but the specific nature of this community Plato has neglected more precisely to define. 18

The method by which one knows the ideas is called the dialectical method, or as Plato used it, the dialogue method. Pater says that it is essentially "a long discourse or reason-
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ing of the mind with itself." Windelband argues that this

knowledge comes by reflection on what is a priori given in
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the mind. Yet it is the movement of dialectic which attains that reflection in the form of pure concepts. Plato is very

18 Ueberweg. op. cit., pp. 115-116. Cf. B. F. Cocker. Christianity and Greek Philosophy, pp. 364 ff. for a scheme or outline of the ideas themselves.

19 Pater. op. cit., p. 183. Cf. pp. 174 ff.

20 Windelband. op. cit., pp. 118-119.

21

specific about that.

As to the epistemological ramifications of Plato's thought, one can sum up Plato's thought in the statement that true knowledge is conceptual rather than perceptual. The absolute certainty of the knowledge gained by conceptual thinking is firmly held throughout Plato's dialogues. Sense-experience may be in error--he calls it "opinion"--and can never become more than a probability. As Taylor says:

Sense and thought are radically disparate, yet everywhere connected. Nature, the realm revealed by our senses, is only half-real, but it suggests a further reality which lies beyond itself. It is a system of symbols, and we ascend to truth by learning to pass from the symbols to the non-sensuous realities symbolized.²²

Thus Macintosh denominates Plato's theory of knowledge an
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"absolute conceptualistic monism". It is monistic in that there is a numerical identity between the object of knowledge and the content or data of knowledge, but this is a limited monism in that it is conceptualistic. In other words, this monism is limited to the realm of concepts and does not extend to the realm of sense-experience. Not only is it monistic but it is realistic. This is important for the use

²¹ Cf. Thilly. op. cit., p. 61; Johann Eduard Erdman. A History of Philosophy, Volume I, pp. 105 ff.; and Benjamin Cocker's excellent review of Plato's dialectics, op. cit., pp. 353 ff.

²² Taylor. op. cit., pp. 41-42.

²³ Macintosh. op. cit., pp. 336-337.

of the term "conceptualistic" by Macintosh might indicate that Plato's ideas are merely subjective. It is clear that this is not so. Plato, according to Pater, was the father of realists in that his theories have no place for nominalism, which makes the abstraction to be merely a name, or conceptualism (idealism), which makes the abstraction purely a subjective thing.²⁴ With this in mind, it is thought that a better denomination for Plato's theory of knowledge would be "rational realistic monism". This is limited to the area of concepts and extends to the area of sense-experience only to the extent that the world of Becoming participates or imitates the world of Being and thus has constant (knowable) elements. This latter knowledge is not pure and never exceeds the limits of probability.

Not only is the concept made supreme in knowing with opinion no more than probable and perception liable to mistake, Plato also recognizes certain irrational or extra-rational elements. Ludwig Edelstein, along with others, feels that Plato's use of the myth in philosophy indicates a reconciliation between the rational and irrational elements in human nature. In other words he does justice to the intellect without infringing on the emotions and vice-versa. This was not an anti-rationalism but it had a real function within his dialectics. Edelstein says:

²⁴ Pater. op. cit., p. 151.

The myth, shaped in accordance with reason, brings to the realm of the passions the light of the intellect; it instigates man to act with hope and confidence toward the goal which reason has set before him.²⁵

This may be a carry-over of Socrates "daimon" principle if it is a true interpretation. At any rate, there seems to be extra-rational elements in man which Plato admits and uses. These imaginative and poetic elements are not found and accounted for by means of a dialectic but are regarded as present on the basis of experience. These elements do not have anything to do with the acquiring of knowledge but are joyful stimulants to the goal of acquiring knowledge.

A final consideration is the role of faith in Plato's philosophy. As has been pointed out, he shared the basic three-fold belief of the earlier Greek thinkers that there is a unity to the universe, that it remains fixed, and that it can be known by the natural rational powers of man. There is also a faith-venture which, according to this study, appears in the dialogue which seems to have marked the turning-point toward the ontological problems involved in the theory of ideas. The Parmenides introduces rational problems with which Plato in his later dialogues struggled. The dialogue reveals the attitude that though the ideas seem involved in rational inconsistencies, which must yet be worked out, yet

²⁵ Ludwig Edelstein. "The Function of Myth in Plato's Philosophy", Journal of the History of Ideas, October, 1949, p. 477. Cf. Republic, Book III, 413 and Phaedo 114. (Jowett. op. cit., Volume I, pp. 677-678 and pp. 497-498) etc.

the existence of the ideas must be postulated before philosophy can become operative. This is a postulatory faith of the type that Macintosh mentions in The Problem of Religious Knowledge as "belief which is rationally necessary in the sense of being logically involved in what may be regarded, on adequately critical grounds, not only as theoretically permissible but as practically necessary. . . ." ²⁶ Another fact concerning faith is that as Socrates made room for his daimonion so Plato made room for the ultimate mystery. Kroner says that Plato not only used this expression but gave example to the idea by his lack of final and ultimate conclusions:

Philosophy does not come to an end: the nature of the Ultimate as mystery forbids ultimate solutions. The manner in which Plato leads the reader of the dialogues on and on without ever coming to a definite and final destination is consequently more philosophic than is the happy ending of other systems.²⁷

Another facet of faith is seen in the Timaeus primarily where Plato asserts a cosmic teleology. As Glenn R. Morrow points out, such a cosmic teleology meets some logical difficulties, but it is obvious that such a teleology exists in Plato's mind and there is no trace of how it is established. Morrow feels that it is not a teleology of necessity but a teleology of persuasion where things are made friends by the

²⁶ Douglas Clyde Macintosh. The Problem of Religious Knowledge, p. 7.

²⁷ Richard Kroner. The Primacy of Faith, p. 21.

creator and led to their best ends--a co-operative enterprise with the universe, which is alive, responding to the persuasion of a creator with each new thing progressing toward
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 cosmos.

It may be as Philip Merlan feels it is, after tracing the difficulty of the content of Plato's message and of the form in which he wrote, that Plato's purpose was not to build a system so much as it was to investigate and cross-examine. The conclusion of his study is as follows:

But what is indicated? What are, after all, the contents of Plato's philosophy? If we admit that Plato was in earnest when he said that all that can be given is an indication, that he never communicated what was essential to him, because it cannot be expressed in the usual way, if we admit that Plato was in earnest when he chose his form of writing, we shall have to say: Plato's philosophy dismisses us cross-examined rather than instructed. It asks: What kind of content is communicable only by speaking indirectly and under another's name. By withholding all certitude and not betraying the author to his readers? What kind of content can be expressed only so that it remains unexpressed?29

As he himself admits, this is hardly a satisfactory conclusion to most historians, but it may well be that Plato never meant for his philosophy to take on the solidity of a perfectly-rounded system. It may be that he conceived of the universe and man in it, as is intimated in the Timaeus, as not so

28 Glenn R. Morrow. "Necessity and Persuasion in Plato's Timaeus", Philosophical Review, April, 1950, pp. 147 ff.

29 Philip Merlan. "Form and Content in Plato's Philosophy", Journal of the History of Ideas, October, 1947, p. 429.

much logically integrated as alive and growing and personal as it moves toward its telos--a philosophy which can grasp that which may need to be rational plus that which is imaginative and believable, a personal approach to a personal world.

But above all, as John M. Warbeke says,

he [Plato] had the faith that our various moments and variegated experiences, the maze of evanescent and conflicting particulars by which we are confronted, can be consistently ordered by the mind's own forms into a means of realizing the essential, the common, the permanent in that experience.³⁰

³⁰ John M. Warbeke. The Searching Mind of Greece, p. 184. For a discussion of the Old Academy, cf. Appendix I.

PART FOUR

ARISTOTLE

CHAPTER VIII

ARISTOTLE'S LOGIC

Though he did not agree with his teacher in all things, it can probably be said that as Plato was the one true disciple of Socrates so Aristotle was the one true disciple of Plato.¹ To this important and influential man in the stream of Greek, and thereby Western, thought this study now turns.

One of the problems facing a student of Aristotle's writings is the problem of the Aristotelian canon and the order of writing. The problem of the canon is not our immediate concern nor is it for this paper to determine. Men like Zeller and Grote have spent much time on this problem and therefore the policy of this study is to accept as canonical those writings upon which there is general agreement. It is with this brief statement that this particular problem is dismissed.²

The problem of the order of writing of Aristotle has no direct influence upon this paper for there is no clear division into earlier and later thought as in the works of Plato. However, the works of Aristotle are easily grouped

¹ Albert Schwegler. History of Philosophy, p. 94.

² Cf. Eduard Zeller. Aristotle and the Earlier Peripatetics, Volume I, Chapter III, pp. 137 ff., George Grote. Aristotle, Volume I, Chapter II, pp. 38 ff., and Friedrich Ueberweg. History of Philosophy, pp. 139 ff.

into six classes. John Leofric Stocks suggests the following grouping. This is not necessarily the order of writing, but it does make an excellent grouping for the purpose of analysis. The first group is the writings of logic contained in the collection called the Organon. These contain Aristotle's theory of the demonstrative syllogism. The second group contains Aristotle's writings on the theory of matter and motion including Physics (Physica), On the Heavens (De Caelo), On Generation and Corruption (De Generatione et Corruptione) and Meteorology (Meteorologica). Physics and On Generation and Corruption are probably the two most important writings of this group. The third group contains Aristotle's theory of life or the nature of the soul, On the Soul (De Anima) and the shorter treatises grouped under the heading Parva Naturalia. In the fourth group there are four treatises on the animal world which are perhaps the least theoretical of the works of Aristotle. The fifth group, according to Stocks, includes Aristotle's writings on man and his works. This group includes the Ethics, especially the Nicomachean Ethics (Ethica Nicomachea), the Politics (Politica), the Rhetoric (Rhetorica) and the Poetics (De Poetica). The long treatise, the Metaphysics (Metaphysica), stands alone in the sixth group and has for its purpose the study of "the ultimate nature of being and the nature of the ultimate being."³

³ John Leofric Stocks. Aristotelianism, p. 10, cf. pp. 8-10.

The method employed in this study of Aristotle is an analysis of the Metaphysics, the Organon, On the Soul and two of the three treatises in the Parva Naturalia, namely On Memory and Reminiscence and On Dreams. However, for purposes of clarity, the Metaphysics will be considered following a consideration of the Organon. This provides a discussion of Aristotle's methodology before the other facets of his work are investigated.

There remain for consideration some fragmentary dialogues ascribed to Aristotle. These show more of an attachment and partial, though not complete, agreement with Plato. Plutarch calls these works Aristotle's "Platonic works". They are important in that they show first, the link between Aristotle and Plato, and then the gradual and cautious breaking away of Aristotle to a more independent, though not completely new, position.⁴

I. AN INTRODUCTION TO THE ORGANON

The Organon is a compilation of Aristotle's writings on logic. Wallace says that logic is primarily the creation of Aristotle.

If Socrates broke ground upon the subject of the concept, and Plato laid the foundation of a theory of proposition, Aristotle in turn completed the analysis of knowledge by adding on his theory of syllogism.⁵

⁴ Werner Jaeger. Aristotle, pp. 24-101, cf. p. 36, footnote 2.

⁵ Edwin Wallace. Outlines of the Philosophy of Aristotle, p. xvi.

But logic is the science of thinking correctly and therefore it must be that Aristotle's logic gives, or at least should give, an index to the method which he himself used in building his philosophical system.

Richard McKeon suggests that Aristotle's logical works are concerned with two major problems, "the technique of proof and the principles of proof."⁶ In working on these two major problems, Aristotle wrote six treatises, or at least six treatises have been preserved, not entirely intact, to the present day. These treatises, given in the order with which they are dealt in this study, are: the Categories (Categoriae), dealing with simple, uncombined terms under ten heads or categories; On Interpretation (De Interpretatione), having to do with "pairs of terms combined in propositions and expressive of truths and falsities conceived by the mind"; the Prior Analytics (Analytica Priora) "is concerned with inference or, since all perfect inference may be stated as a syllogism or a series of syllogisms, with combinations of three terms in an argument. The last three treatises of the Organon distinguishes between three kinds of syllogisms on the basis of their premisses or principles: the Posterior Analytics (Analytica Posteriora) has to do with the selection of true first principles on the basis of the nature of things;

⁶ Richard McKeon. "Introduction". The Basic works of Aristotle, p. xvi.

the Topics (Topica) discusses the selection or rejection of principles which express opinion only--syllogism on these premisses are dialectical and probable, not certain--; and finally On Sophistical Refutations (De Sophisticis Elenchis) deals with fallacious arguments which are largely due to ambiguities of language.⁷ One of the divergences which appear between Aristotle and Plato exists at this point for what was for Plato the one scientific and philosophical method, namely the dialectical method, was for Aristotle a secondary method without the certainty which exists in the method of science.⁸

II. THE CATEGORIES AND ON INTERPRETATION

The term "category" as used by Aristotle probably meant what is meant in English by the term "predicate." In other words, when Aristotle spoke of ten categories he meant ten predicates which could be made of a single subject. Ross, for example, says that "the categories are a list of the widest predicates which are predicable essentially of the various namable entitles, i.e., which tell us what kinds of

⁷ Ibid., p. xvii.

⁸ Loc. cit. and Grote. op. cit., pp. 298 ff.

entity at bottom they are."⁹ These ten predicates are discussed in Aristotle's The Categories. Wallace lists them thus: "Substance, Quantity, Quality, Relation, Place, Time, Situation, Condition, Action, Passion." This means that a subject--Aristotle was probably thinking of a man or an animal as his subject--may be described as substance, quality,¹⁰ etc. Gomperz imagines Aristotle as having proceeded in this way:

Aristotle imagines a man standing before him, say in the Lyceum, and passes in successive review the questions which may be put and answered about him. All the predicates which can be attached to that subject fall under one or other of the ten heads, from the supreme question: What is the object here perceived? down to such a subordinate question, dealing with mere externalities, e.g. shoes or weapons? Other questions are concerned with his qualities and his size. . . under the head of relation. . . some answers in which a term such as Greater or Less, Handsomer or Uglier, implies a reference to an object or objects of comparison. The "When" is explained by a Yesterday or To-morrow, the Doing and Suffering by the sentences: "He is cutting or burning," "He is being cut or burnt." The enumeration is intended to comprise the maximum of predicates which can be assigned to any thing or being.¹¹

The categories themselves have come into much disrepute as being inadequate. Kant and Hegel and most especially J. S.

⁹ W. R. Ross. Aristotle, p. 23. Harold P. Cooke. "Introduction." The Categories and On Interpretation in Aristotle, The Organon (Leob Classical Library).

¹⁰ Edwin Wallace. Outlines of the Philosophy of Aristotle, p. 25.

¹¹ Theodor Gomperz. Greek Thinkers, Volume IV, p. 39.

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Mill attacked Aristotle at this point. but it is not the list of predicates itself which is of importance to this study. What is important is the insight into Aristotle's method of thought which begins with a subject and moves to the predicates which may exist of that subject. With that in mind, the fact that the predicates are not necessarily complete lends weight to the fact that they are not the primary postulates but are rather themselves derived from the presence of the subject.¹³ It must be pointed out, as Zeller notes, that these concepts, the categories, are not merely subjective forms of thought. They are, rather, the different forms which the Actual can take, the Subject being the Actual.¹⁴ (The philosophy of the Actual must await the discussion of Aristotle's Metaphysics.) But to make the subject as an isolated Actual is to misinterpret Aristotle, according to Grote. It is true that the Subject is prior in the logical procedure and primary in the logical sum-total, but this does not complete the picture:

It is a mistake to describe the Subject as having a real standing separately and alone, and the Predicates as something afterwards tacked on to it. The Subject per se is nothing but general potentiality or receptivity for Predicates to come; a relative general conception, in which the two, Predicate and Subject, are jointly

¹² Ibid., pp. 38-39.

¹³ Cf. G. R. G. Mure. Aristotle, p. 179.

¹⁴ Zeller. op. cit., pp. 274-275. Cf. pp. 280-281.

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implicated as Relatum and Correlatum.

Aristotle in referring to this combination of Subject and Predicate says:

No one of these terms, in and by itself, involves an affirmation; it is by the combination of such terms that positive or negative statements arise. For every assertion must, as is admitted, be either true or false, whereas expressions which are not in any way composite such as 'man', 'white', 'runs', 'wins', cannot be either true or false.¹⁵

However, it is clear that Aristotle was here speaking of the combination of Subject and Predicate in a philological rather than in an ontological way.

The second treatise of the Organon compilation is entitled, On Interpretation. It seems to have received that title because it shows Aristotle's assertion that language is the means of interpreting thought. As the Categories deal with simple, uncombined terms, On Interpretation discusses the theory of propositions and their analysis.¹⁷

Aristotle defines a noun as "a sound significant by convention, which has no reference to time, and of which no part is

¹⁵ Grote. op. cit., p. 139. For a comprehensive study of the Categories, cf. Grote. op. cit., Chapter III, pp. 76-154. Cf. also Gomperz. op. cit., pp. 36-43; Zeller. op. cit. pp. 274-290.

¹⁶ Aristotle. The Categories, 244-10. (Richard McKeon. The Basic Works of Aristotle, p. 8.) The Aristotle references are only close approximations as to page etc. because of technical difficulty in translating.

¹⁷ Cooke. op. cit., p. 7.

significant apart from the rest." A verb is "that which, in addition to its proper meaning, carries with it the notion of time. No part of it has any independent meaning, and it is a sign of something said of something else." A sentence is "a significant portion of speech, some parts of which have an independent meaning, that is to say, as an utterance, though not as the expression of any positive judgement."¹⁸

Of the types of sentences, Aristotle selected the proposition for discussion. Simple propositions are described as either simple affirmations or simple denials. Thus it is seen that the ground of distinction is truth and falsehood.

Wallace says:

A simple proposition then is a significant sound which expresses the inherence or non-inherence of something in something else: for the truth or falsity of propositions is determined by their agreement or disagreement with the facts they represent, a false proposition combining what is divided and dividing what is really united. Thus propositions are either affirmative (*καταφατικά*) or negative (*ἀποφατικά*), each of which again may be either universal or particular or designate.¹⁹

It is not necessary, though tempting, to discuss the intricacies of the theory of propositions. Wallace gives this short summary of the theory which will suffice:

Propositions are said to be opposed as Contradictories (*ἀντιφατικῶς ἀντικείμεναι*) when the one asserts or denies of the whole what the other denies or asserts of

¹⁸ Aristotle. On Interpretation, 16a19-20, 16b5-7, 16b25-28, respectively (McKeon. op. cit., pp. 40, 41, 41-42, respectively.)

¹⁹ Wallace. op. cit., p. 28.

the part, and as contraries (ἐναντιῶς ἀντικείμεναι) when an universal affirmative stands against a universal negative. Contradictories accordingly entirely exclude one another and one proposition must be false another true: contrary propositions may both be false. Formally (κατὰ τὴν λέξιν) four kinds of opposition have to be distinguished, but really only three, since the opposition of a particular affirmative to a particular negative is merely verbal. Propositions admit of Conversion (ἀντιστροφῇ) into equivalent propositions having the order of the terms reversed, but while the universal negative converts simply, the affirmative does so only partially.²⁰

One important thing is that Aristotle delimited the use of language and its thought-content to carefully wrought-out principles, so that every proposition has only one opposite. The importance of this is seen in the Sophistical Refutations.

Another thing of importance is the fact that the universal and individual begin to appear in a somewhat new setting. Aristotle defined these terms:

Some things are universal, others individual. By the term 'universal' I mean that which is of such a nature as to be predicated of many subjects, by 'individual' that which is not thus predicated. Thus 'man' is a universal, 'Callias' an individual.²¹

This reveals his point of interest to be the individual or the particular to which the universal is related so that whatever predicative thing can be said of one subject, if it can be said of the many subjects, becomes a universal. This

²⁰ Ibid., pp. 29-30.

²¹ Aristotle. op. cit., 17a37-40. (McKeon. op. cit., p. 43).

particular point will become clarified as the study continues. ²²

III. THE PRIOR ANALYTICS

According to Gomperz, the Prior Analytics contains Aristotle's theory of inference while the Posterior Analytics contains his theory of proof. ²³ It is to these two bulwarks of Aristotle's logic that this study now turns. The former treatise falls into two divisions, the first containing the announcement, demonstration, and analysis of syllogistic reasoning, and the second containing specific instructions on the constructions of syllogisms plus some warnings and practical directions. ²⁴ Exhaustive covering of Aristotle's principles of syllogistic theory, is not of importance to this study, but the implications and explications of the theory as a means to knowing is of great importance.

As an introduction to his theory, Aristotle defined a premiss as

an affirmative or negative statement of something about some subject. This statement may be universal or particular or indefinite. By universal I mean a statement which applies to all, or to none, of the subject; by particular, a statement which applies to some of the subject, or does not apply to some, or does not apply to

²² For a comprehensive discussion of the treatise, On Interpretation, cf. Grote. op. cit., Chapter IV, pp. 155-199, and Mure. op. cit., pp. 205 ff.

²³ Gomperz. op. cit., p. 44.

²⁴ Hugh Tredennick. "Introduction" to the Prior Analytics, Aristotle. Organon, (Loeb Library), p. 184.

all; by indefinite, a statement which applies or does not apply without reference to universality or particularity, e.g., 'contraries are studied by the same science' or 'pleasure is not good.'²⁵

The term he defined as the subject and predicate of a premiss with the verb removed, and a syllogism is defined as

a form of words in which, when certain assumptions are made, something other than what has been assumed necessarily follows from the fact that the assumptions are such. By 'from the fact that they are such' I mean that it is because of them that the conclusion follows; and by this I mean that there is no need of any further term to render the conclusion necessary.²⁶

In other words, the syllogism is a combination of two propositions (premisses) which, if properly constructed, lead to a third proposition which differs from the two yet is true if they are true.²⁷ The chief rules of syllogism are (1) that one premiss must be affirmative, (2) that one must be universal, and (3) that one or both of the premisses must be of the same mode as the conclusion, that is, being apodictic (necessary)²⁸ or assertoric (actual) or problematic (possible).

The use of the demonstrative syllogism by Aristotle, is largely deductive. The movement is from the whole to the

²⁵ Aristotle. Prior Analytics, 24216-23. (Organon, Volume I, Loeb Library, p. 199).

²⁶ Aristotle. op. cit., 24b19-23c, cf. also 24b16-18. (Loeb Library. op. cit., pp. 201, 203, cf. p. 201).

²⁷ Cf. Grote. op. cit., p. 206.

²⁸ Aristotle. op. cit., 41b6 ff. (Loeb Library. op. cit., pp. 323 ff.) Cf. also Wallace. op. cit., p. 40.

part but this movement can be reversed. The fact that the syllogism in its larger meaning is so set up to work both ways indicates, firstly, that the universal is the basic law while the process is largely one of the subsumption of the many and varied particulars under larger classifications--in this he follows in the Socratic-Platonic line--, and secondly, that the law exists amid the phenomena, the universal in the particular. It is true in the first instance that induction is the means of establishing the premisses, yet Aristotle, while recognizing this, assumes the obviousness or the epistemological a priori-ness of the basic propositions. The process is his main concern.²⁹

Aristotle distinguished between the use of actual and modal premisses in the syllogism--that is, the assertoric on one hand and the apodictic and problematic on the other. In his discussion of modal propositions, Aristotle presented some difficult problems and some seeming inconsistencies.³⁰ The treatment of modal premisses does not seem to fit consistently into Aristotle's scheme, according to Tradennick who points up part of the difficulty in the following manner:

²⁹ Aristotle. Topics, 108b7 ff. (McKeon. op. cit., pp. 205 f.). Cf. Gomperz. op. cit., pp. 50 ff. and Wallace. op. cit., pp. 42, 43.

³⁰ Aristotle. Prior Analytics I, Chapters ii, iii, and viii-xxii. (Loeb Library. Organon, pp. 203 ff, and 237 ff.).

A judgement is apodeictic if it rests on demonstrable grounds, assertoric if the fact is apprehended but the grounds are unknown, and problematic if the fact is regraded as capable of realization. But even so the dividing line between the first two is hard to draw; and the universal problematic judgement is more naturally expressed as a particular assertoric.

Thus Tredennick implies that genuine distinctions do not exist when modals are introduced.³¹ Grote, in discussing both Prior Analytics and On Interpretation--the modals are really introduced in the latter-named treatise--, raises the question, which he says has been raised before, whether the modals actually belong to the realm of logic. Logic, it is maintained, as a science, is limited to a discussion of things that are and exceeds its rights when it discusses things that may be or must be. To try to solve this problem is outside the purpose of this paper, but it is significant that Aristotle included the modals in his own treatment. Not only so, they quite naturally come in for investigation. At first the possible and the necessary are joined, but in the Prior Analytics they become disjoined and equivalent. The Actual and the Potential become threefold with the addition of the Necessary.³²

Aristotle's whole endeavor was aimed at securing invariably correct conclusions on the basis of correct propositions. Yet he recognized that the fate of the conclusions

³¹ Tredennick. op. cit., pp. 192-193.

³² Cf. Grote op. cit., pp. 182 ff. and 222 ff.

is entirely dependent upon the truth or falsehood of the premisses and upon correct procedure in drawing the conclusions. These propositions are based upon the judgment (belief or disbelief) entertained in the mind. With the declaration of an assertoric proposition, a statement of belief is made. But when the proposition is problematic ("may be" or "may not be") the statement indicates a state of mind which wavers between belief and disbelief but never settles on one or the other. Furthermore, when the proposition is apodictic, the state of mind indicated is one of belief plus the supposition that the opposite of what is believed is contradictory. However, to insure the infallibility of his system, Aristotle was forced to regard the mind's adequacy to grasp with certainty the basic premisses, for such knowledge is prior to, and the causing agent of, the knowledge of the conclusion. Thus to avoid regress they must be known with certainty and self-evidence.³³

In the second section of Prior Analytics, Chapter xxi, Aristotle pointed out the possibility of error in judgments but asserted that it arises from a failure to

³³ Cf. ibid., pp. 187 ff. and G. R. G. Mure. Aristotle, pp. 209-210. Aristotle also introduced the hypothetical syllogism and indicated plans to discuss it further. He never did or if he did his discussion is not extant. Therefore, this type of syllogism is not worth attempting a discussion. Cf. Grote. op. cit., footnote "a", p. 190 and Zeller. op. cit., pp. 234 ff.

relate knowledge of the particular to knowledge of the universal. Thus the error does not come at the point of knowing but at the point of relation between the two mentioned areas of knowing. Similar to Plato's theory of recollection in the Meno, he said:

For in no case do we find that we have previous knowledge of the individual, but we do find that in the process of induction we acquire knowledge of particular things just as though we could remember them; for there are some things which we know immediately. . . .

Thus whereas we observe particular things by universal knowledge, we do not know them by the knowledge peculiar to them. Hence it is possible to be mistaken about them, not because we have contrary knowledge about them, but because, although we have universal knowledge of them, we are mistaken in our particular knowledge.³⁴

Error may also arise in a mistaken conjunction of premisses.

However, real contrariety of thought must rest upon mis-³⁵apprehension and this to Aristotle is incredible.

The role of induction has already been mentioned briefly, but in Chapter xxiii of Prior Analytics II, Aristotle discussed it more specifically. It is in this chapter that he declared that all beliefs are formed either by syllogisms or induction.³⁶ As the former moves from a major premiss, a

³⁴ Aristotle. op. cit., 67a22-30 (Loeb Library. op. cit., p. 503).

³⁵ Cf. ibid., II, Chapter xxi (Loeb Library. op. cit., p. 503).

³⁶ It is clear from his discussion that Aristotle regarded induction as a kind of syllogism so that when he distinguished between syllogisms and induction he was clearly using the former term in a narrower sense, probably in the sense of a demonstrative syllogism. This use of terminology also holds for his discussion of example, reduction, objection and probability which in a broader sense are all syllogisms.

premiss of the whole, to a minor premiss, a premiss of a part, by the means of a middle term, the latter reverses the procedure and moves from a minor to a major premiss, from the part to the whole. Though Aristotle did not rule out induction, he pointed out that the use of the middle term in such a syllogism is not proper. Not only so, but Aristotle regarded the major premiss as always immediately not mediately known. Therefore, induction is probably not a genuine syllogism, as Grote and others suggest, but it serves the purpose of finding the major proposition from which syllogistic deductions can be made. Thus induction-deduction is a necessary combination, the latter being dependent upon the former. Grote phrases it this way:

The two processes are (as he says) opposite in a certain way; that is, they are complementary halves of the same whole; Induction being the establishment of those universals which are essential for the deductive march of the Syllogism; while the two together make up the entire process of scientific reasoning.³⁷

With this in mind, it is only fair to say that Aristotle probably did not give an adequate discussion in this chapter of the role of induction in the forming of major premisses.

In the remaining chapters of the Prior Analytics, Aristotle discussed example--a part of induction--, reduction,

³⁷ Grote. op. cit., p. 279. Cf. Aristotle. op. cit., 68b30 ff. (Loeb Library. op. cit., p. 515).

objection, and probability. Only the last should receive some comment. Probabilities are commonly accepted propositions which are true in the greater number of cases. This is distinguished from the term "signs" which means that an evident fact is evidence for the existence of something not so evident. The use of such propositions in syllogisms, which are called enthymemes, makes it necessary for the conclusions to be regarded as not irrefutable.

It can therefore be said, in concluding the investigation of the Prior Analytics, that the syllogism, which Aristotle largely invented, proceeds with certainty where the premisses are certain but is also operative to a more or less degree in areas where there is less certainty. Given completely reliable premisses, Aristotle promised by the use of his method to give completely reliable conclusions.³⁸

IV. THE POSTERIOR ANALYTICS

As has been seen, the syllogism's validity is contingent upon the validity of its premisses. The main movement in the Prior Analytics is the exposition and development of the theory of syllogisms, but Aristotle was evidently aware that his whole system would collapse unless there were

³⁸ This statement is open to question in the area of modal propositions perhaps but can be taken as correct when the premisses are assertoric.

some adequate way of determining the validity of the first principles from which the syllogism works. This latter effort appears in his Posterior Analytics and the Topics. The former has to do with the selection of true first principles, which result in a demonstrative use of syllogisms; the latter has to do with the selection or rejection of principles expressing opinion only, which result in a dialectical use of syllogisms. Grote gives an excellent five-fold list of differences between Aristotle's demonstrative science and the dialectical reasoning which Plato had so much faith in:

- (1) Instead of a debate between thesis and antithesis to find the correct conclusion, demonstrative science is a laying down of premisses by one who knows to one who does not know.
- (2) Instead of having an unlimited variety of subjects, science is limited to a few subjects concerning which appropriate premisses can be made.
- (3) Instead of several authorities, science has its own single authority.
- (4) Instead of conflicting authorities and accidental premisses, science's propositions are essential, universal, and true from the beginning to the end.
- (5) The principles of demonstrative science come only by induction and thus originate in particulars and culminate in universals.

In both, however, the syllogism is used, and therefore the conclusion is hypothe-

39 Grote. op. cit., pp. 301-302.

tically true if the premisses are. The difference in conclusions reached by science are universally, absolutely, and necessarily true.⁴⁰

The Posterior Analytics begins with an assertion that a person must begin the scientific procedure from the point of pre-existing knowledge. This knowledge is of two kinds: "In some cases admission of the fact must be assumed, in others comprehension of the meaning of the term used, and sometimes both assumptions are necessary."⁴¹ But this knowledge is somewhat different from Plato's theory of reminiscence. An absolute and unqualified knowing comes without learning, but there is a knowing which is partial and incomplete. Learning, not reminiscing, brings the latter type of knowing to the status of the former type.⁴²

The question now arises, What is absolute and unqualified knowing? Aristotle answered in the following way:

We suppose ourselves to possess unqualified scientific knowledge of a thing, as opposed to knowing it in the accidental way in which the sophist knows, when we think that we know the cause on which the fact depends, as the cause of that fact and of no other, and, further, that the fact could not be other than it is. Now that scientific knowing is something of this sort is evident--witness both those who falsely claim it and those who actually possess it, since the former merely imagine themselves

⁴⁰ Ibid., pp. 302-303.

⁴¹ Aristotle. Posterior Analytics, 71a11-13. (McKeon. op. cit., p. 110).

⁴² Cf. Grote. op. cit., pp. 304 ff. and Aristotle. op. cit., pp. 110-111).

to be, while the latter are also actually, in the condition described. Consequently the proper object of unqualified scientific knowledge is something which cannot be other than it is.⁴³

Zeller is therefore correct when he says, "The starting-point of all demonstration is undemonstrable--it is incapable of being deduced from any other principle as from its cause."⁴⁴

This undemonstrable knowledge, as Grote points out, must be more than a mere understanding of the terms. It must be an ability to affirm the truth of the proposition. Some of these affirmed propositions are axioms; some are definitions; and some are hypotheses. Specifically, these undemonstrable premisses are necessary premisses. To be a necessary premiss, the subject must have a predicate which can meet a three-fold specification: (1) it must belong and belong at all times to everything bearing the name of the subject (de omni); (2) it must belong to the subject essentially (per se), not concomitantly or accidentally; and (3) it must be attached to the subject "in the highest universality consistent with truth" or, in other words, it must be a First Universal, a primary, not a derived, predicate (quatenus ipsum).⁴⁵

⁴³ Aristotle. op. cit., 71b8-15. (McKeon. op. cit., p. 111).

⁴⁴ Eduard Zeller. Aristotle and the Earlier Peripatetics, Volume I, p. 252. Cf. Aristotle. op. cit., 72b18 ff. (McKeon. op. cit., p. 114).

⁴⁵ Grote. op. cit., pp. 311-312. Quotation from p. 312. Cf. Aristotle. op. cit., I, Chapter iv and vi. (McKeon. op. cit., pp. 115-117 and 119-121, respectively).

So important are these basic premisses that Aristotle said with some urgency:

So since the primary premisses are the cause of our knowledge--i.e. of our conviction--it follows that we know them better--that is, are more convinced of them--than their consequences, precisely because our knowledge of the latter is the effect of our knowledge of the premisses. Now a man cannot believe in anything more than in the thing he knows, unless he has either actual knowledge of it or something better than actual knowledge. But we are faced with this paradox if a student whose belief rests on demonstration has not prior knowledge; a man must believe in some, if not in all, of the basic truths more than in the conclusion. Moreover, if a man sets out to acquire the scientific knowledge that comes through demonstration, he must not only have a better knowledge of the basic truths and a firmer conviction of them than of the connexion which is being demonstrated: more than this, nothing must be more certain as contradicting the fundamental premisses which lead to the opposed and erroneous conclusion. For indeed the conviction of pure science must be unshaken.⁴⁶

Since these universal premisses are necessary, Aristotle had to face the problem of how ignorance arises. He did so by distinguishing between two forms of ignorance, negative and positive ignorance. The latter is "error produced by inference" and is actually error of conclusion because of a faulty syllogism.⁴⁷ The former is the actual negation of knowledge due to a failure or defect in sensible perception. Here he makes clear his theory of induction which supplies the universal

⁴⁶ Aristotle. op. cit., 72a25-72b4. (McKeon. op. cit., p. 113.

⁴⁷ Aristotle. op. cit. I, Chapters xvi-xvii (McKeon. op. cit., 132 ff.).

premisses, for induction begins with sensation. Aristotle said:

It is clear that the loss of any one of the senses entails the loss of a corresponding portion of knowledge, and that, since we learn either by induction or by demonstration, this knowledge cannot be acquired. Thus demonstration develops from universals, induction from particulars; but since it is possible to familiarize the pupil with even the so-called mathematical abstractions only through induction--i.e. only because each subject genus possesses, in virtue of a determinate mathematical character, certain properties which can be treated as separate even though they do not exist in isolation--it is consequently impossible to come to grasp universals except through induction. But induction is impossible for those who have not sense-perception. For it is sense-perception alone which is adequate for grasping the particulars: they cannot be objects of scientific knowledge, because neither can universals give us knowledge of them without induction, nor can we get it through induction without sense-perception.⁴⁸

The term "induction" has been used to refer to the process of establishing necessary universal propositions from particulars known by sense-perception without the use of a mediate process of inference. It should be noted, however, that this is not the scientific induction of Bacon. Science, as demonstration, for Aristotle does not begin with perception; induction does. Science begins with the necessary principles from which syllogistic thinking proceeds. It is this syllogistic process, when it is demonstrative--which it must be if the starting-point is a universal, necessary premiss--which brings scientific knowledge. It is a process of grouping particulars under universals. This is clearly seen in

⁴⁸ Aristotle. op. cit., I, Chapter xviii. (McKeon. op. cit., pp. 135-136.

the way Aristotle carried on his own scientific investigation⁴⁹ in the natural world. Concerning the point that science does not begin with sense-perception, Aristotle said:

Scientific knowledge is not possible through the act of perception. Even if perception as a faculty is of 'the such' and not merely of a 'this somewhat', yet one must at any rate actually perceive a 'this somewhat', and at a definite present place and time: but that which is commensurately universal and true in all cases one cannot perceive, since it is not 'this' and it is not 'now'; if it were, it would not be commensurately universal--the term we apply to what is always and everywhere. Seeing, therefore, that demonstrations are commensurately universal and universals imperceptible, we clearly cannot obtain scientific knowledge by the act of perception; nay, it is obvious that even if it were possible to perceive that a triangle has its angles equal to two right angles, we should still be looking for a demonstration--we should not (as some say) possess knowledge of it; for perception must be of particular, whereas scientific knowledge involves the recognition of the commensurate universal.⁵⁰

Aristotle began the second section of the Posterior Analytics by indicating the four possible forms of inquiry: (1) questions of fact ($\acute{\omicron}\tau\iota$); (2) questions of cause ($\Delta\iota\omicron\tau\iota$); (3) questions of existence ($\acute{\epsilon}\iota\acute{\varsigma}\tau\iota$); and (4) questions of essence ($\tau\iota\acute{\iota}\sigma\tau\iota$). The meaning is clarified by Aristotle's own words:

The kinds of questions we ask are as many as the kinds of things which we know. They are in fact four:--(1) whether the connexion of an attribute with a thing is a fact,

⁴⁹ Cf. Aristotle. On the Parts of Animals, Book I. (McKeon. op. cit., pp. 643 ff.). However, Aristotle occasionally calls the knowing of universal premisses pure science.

⁵⁰ Aristotle. Posterior Analytics, 88b27-39. (McKeon. op. cit., p. 154).

(2) what is the reason of the connexion, (3) whether a thing exists, (4) what is the nature of the thing.⁵¹

It is clear that Aristotle referred here to the middle term. Questions one and three ask whether there is a middle term of connection or not; questions two and four assume it is present but ask what it is. Also the answers to questions two and four are dependent upon the answers given to questions one and three respectively. Aristotle also asserted that the answers to questions two and four are identical. To ask the reason for a thing and to ask the nature of it are the same. He illustrated this by saying:

For in all these examples it is clear that the nature of the thing and the reason of the fact are identical; the question 'What is eclipse?' and its answer 'The privation of the moon's light by the interposition of the earth' are identical with the question 'What is the reason of the eclipse?' and the reply 'Because of the failure of light through the earth's shutting it out'.⁵²

The point involved in the mentioning of the four types of inquiry is the raising of the next question which Aristotle posed, namely, Are the answers to these inquiries found by means of definition or by means of demonstration? Definition has already been mentioned as a form or universal principle which is undemonstrable. Aristotle again maintained the clear distinction between definition, the universal undemonstrable principle, and the demonstrable conclusion even to

⁵¹ Ibid., 89b22-26. (McKeon. op. cit., p. 158).

⁵² Ibid., 90a14-18. (McKeon. op. cit., p. 160).

the point of asserting that the conclusions of demonstration can never be the conclusions of definition and vice-versa.

It is clear that the conclusions of demonstration come because of immediately known universal principles, here called definitions, and the correct process of syllogistic inference, but the question now is, How is it possible for definition to become known? In the earlier section of the Posterior Analytics, Aristotle laid out some necessary conditions for the predicate of a universal proposition and also stated that basically the knowing of a universal proposition is the knowing not of a fact but of the cause of a fact. With that in mind, the question as to how a universal proposition can become known reduces to the question, How can one know the cause or essence--they are identical problems in Aristotle's thinking--of a thing? It must be noted, however, as a matter of clarity before proceeding to a discussion of causes and how they can be known, that Aristotle made way for the use of the term "definition" in three senses: (1) as an explanation of the meaning of a word--this is clearly merely a nominal use of the term and has nothing to do with existence and essence; (2) as enunciating the essence or cause of a thing when the cause is actually extraneous or distinct from the thing--this would logically demand a middle term and thus reduces to a demonstrative syllogism; and (3) as an immediate and indemonstrable proposition where the cause is not extraneous.

The third sense of the term is obviously the one under question. Aristotle said:

Now while some things have a cause distinct from themselves, others have not. Hence it is evident that there are essential natures which are immediate, that is, are basic premisses; and of these not only that they are but also what they are must be assumed or revealed in some other way.⁵³

Aristotle delineated four varieties of causes: (1) the formal cause ($\tau\omicron\ \tau\acute{\iota}\ \tilde{\eta}\nu\ \acute{\epsilon}\tau\upsilon\alpha\iota$) having to do with essence; (2) the material cause ($\tau\omicron\ \tau\acute{\iota}\nu\omega\upsilon\ \acute{\omicron}\nu\tau\omega\upsilon\ \alpha\nu\alpha\chi\kappa\eta\ \tau\omicron\upsilon\tau\acute{\omicron}\tilde{\epsilon}\tau\upsilon\alpha\iota$) having to do with what Grote calls "the necessitating conditions"; (3) the efficient cause ($\tilde{\eta}\ \tau\acute{\iota}\ \pi\rho\omega\tau\omicron\nu\ \acute{\epsilon}\kappa\acute{\iota}\nu\eta\sigma\epsilon$) having to do with the proximate cause of change; and (4) the final cause or end ($\tau\omicron\ \tau\acute{\iota}\nu\omicron\varsigma\ \acute{\epsilon}\nu\epsilon\kappa\alpha$) having to do with the purposive cause.⁵⁴ These causes operate in a time-relation: the efficient cause is prior to the effect in a time-sequence: the final cause, though prior in the order of nature, is posterior to the effect in time; the formal and material causes are simultaneous with the effect.⁵⁵ These four causes appear as middle terms in the forming of demonstrative syllogisms, but they are established by indemonstrable definition in that in syllogizing from the cause to the effect one already assumes

⁵³ Ibid., 93b21-24. (Ibid., p. 169).

⁵⁴ Grote. op. cit., p. 354 and Aristotle. op. cit. II, Chapter 11. (McKeon. op. cit., pp. 170 ff.).

⁵⁵ Aristotle. op. cit., 94b21-26. (McKeon. op. cit., p. 172). See also Grote. op. cit., p. 355.

known effects. This is clearly an inductive process.

The process of induction begins with sense-perception which compares and contrasts attributes. It is the process of collating common attributes of individuals which when assembled is called the essence of the individuals under surveillance and when announced is called definition. This analysis results in synthesis.

Wallace defines Aristotle's use of induction in contrast with his use of the syllogism:

Syllogism and Induction correspond to the two great aspects of existence or ways in which things are known. Things may be looked at either in themselves--as they present themselves, so to speak, to the creative mind--or as they present themselves to us; thus in mathematics it is the point which stands absolutely first ($\phi\upsilon\sigma\epsilon\iota\ \pi\rho\acute{o}\tau\epsilon\rho\omicron\nu$) the superficies or solid figure which is first relatively to us ($\pi\rho\acute{o}\varsigma\ \eta\mu\acute{\iota}\nu\varsigma\ \pi\rho\acute{o}\tau\epsilon\rho\omicron\nu$). Syllogism corresponds with the first of these aspects of the objects of knowledge--it starts with the law or cause, and reasons forward to the application or effect: Induction begins with facts of personal experience and reasons backward to the cause or principle. But knowledge, properly so called, lies in explaining things by reference to what is absolutely prior, and in seeing that their causes lead necessarily to particular effects.⁵⁶

Aristotle described the process from sense-perception onward:

So out of sense-perception comes to be what we call memory, and out of frequently repeated memories of the same thing develops experience; for a number of memories constitute a single experience. From experience again--i.e. from the universal now stabilized in its entirety within the soul, the one beside the many which is a single identity

⁵⁶ Wallace. op. cit., p. 46.

within them all--originate the skill of the craftsman and the knowledge of the man of science, skill in the sphere of coming to be and science in the sphere of being. . . .

Let us now restate the account given already, though with insufficient clearness. When one of a number of logically indiscriminable particulars has made a stand, the earliest universal is present in the soul: for though the act of sense-perception is of the particular, its content is universal--is man, for example, not the man Callias. A fresh stand is made among these rudimentary universals, and the process does not cease until the indivisible concepts, the true universals, are established: e.g. such and such a species of animal is a step towards the genus animal, which by the same process is a step towards a further generalization.⁵⁷

But, though the process of Induction is clear, the establishment of the basic truths, the universal propositions, is not. Induction, it is true, is the means to that end, but it is not the end itself. By sense-perception the analytical side of induction is accomplished, but by what means is a synthesis reached which is the end product of induction, the establishment of the universal premiss? Aristotle ruled out the possibility of innate knowledge of universals and thereby broke again with Plato. His argument is: "Now it is strange if we possess them from birth; for it means that we possess apprehensions more accurate than demonstration and fail to notice them."⁵⁸ However, he sees the need for some sort of pre-existent knowledge. His conclusion is that by

⁵⁷ Aristotle. op. cit., 100a4 ff. (McKeon. op. cit., p. 185).

⁵⁸ Aristotle. op. cit., 99b26-28. (McKeon. op. cit., p. 184).

induction the basic premisses are established but induction begins with sense-perception and ends with intuition or mind (*νοῦς*). His own words are:

Thus it is clear that we must get to know the primary premisses by induction; for the method by which even sense-perception implants the universal is inductive. Now of the thinking states by which we grasp truth, some are unfaillingly true, others admit of error--opinion, for instance, and calculation, whereas scientific knowing and intuition are always true: further, no other kind of thought except intuition is more accurate than scientific knowledge, whereas primary premisses are more knowable than demonstrations, and all scientific knowledge is discursive. From these considerations it follows that there will be no scientific knowledge of the primary premisses, and since except intuition nothing can be truer than scientific knowledge, it will be intuition that apprehends the primary premisses--a result which also follows from the fact that demonstration cannot be the originative source of demonstration, nor, consequently, scientific knowledge of scientific knowledge. If, therefore, it is the only other kind of true thinking except scientific knowing, intuition will be the originative source of scientific knowledge. And the originative source of science grasps the original basic premiss, while science as a whole is similarly related as originative source to the whole body of fact.⁵⁹

V. THE TOPICS AND SOPHISTICAL REFUTATIONS

The basic structure of Aristotle's logic has been discussed. There remain for discussion two treatises, the

⁵⁹ Ibid., 100b4-17. (Ibid., pp. 185-186). This use of *νοῦς* is exceedingly important for both Aristotle's theory of knowledge and his metaphysics. It comes in for more discussion later. On induction, cf. Gomperz. op. cit., Chapters VI-VIII, pp. 56 ff. and Zeller. op. cit., Volume I, pp. 265 ff. For a concise review of the whole Aristotelian theory of inference, cf. Mure. op. cit., pp. 208 ff.

Topics and the Sophistical Refutations. The last named really fits as a ninth book following the Topics. The whole movement within these treatises is the application of the syllogistic principles to the area of opinion rather than to the area of scientific demonstration. It will suffice to draw to attention a few things which are involved in the discussion without entering into the rather involved and long treatment which Aristotle gave his subject.

It is clear that the mode of finding truths which Plato seems to have inherited from Socrates and theorized for himself, namely, the dialectical method, was made by Aristotle into a secondary process. The scientific procedure already discussed is primary for him and is infallible providing the conditions of induction and inference are met. However, he realized that such a method is limited to a small number of select sciences which have their own select primary truths, and therefore, he finds it important to give place to a method which can proceed from premisses which are based on opinion or authority rather than on induction. The syllogism drawn from such premisses would carry no more nor no less validity than the premisses on which they are founded. He said:

Now reasoning is an argument in which, certain things being laid down, something other than these necessarily comes about through them. (a) It is a 'demonstration', when the premisses from which the reasoning starts are true and primary, or such that our knowledge of them has originally come through premisses which are primary and true: (b) reasoning, on the other hand, is 'dialectical',

if it reasons from opinions that are generally accepted. . . . Again (c), reasoning is 'contentious' if it starts from opinions that seem to be generally accepted, but are not really such, or again if it merely seems to reason from opinions that are or seem to be generally accepted. . . .

Further (d), besides all the reasoning we have mentioned there are the mis-reasonings that start from the premisses peculiar to the special sciences, as happens (for example) in the case of geometry and her sister sciences.⁶⁰

There are certain areas in which this type of dialectical reasoning is operative:

There are three--intellectual training, casual encounters, and the philosophical sciences. That it is useful as a training is obvious on the face of it. The possession of a plan of inquiry will enable us more easily to argue about the subject proposed. For purposes of casual encounters, it is useful because when we have counted up the opinions held by most people, we shall meet them on the ground not of other people's convictions but on their own, while we shift the ground of any argument that they appear to us to state unsoundly. For the study of the philosophical sciences it is useful, because the ability to raise searching difficulties on both sides of a subject will make us detect more easily the truth and error about the several points that arise.⁶¹

What has been said is sufficiently clear as to the area into
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which Aristotle was delving.

⁶⁰ Aristotle. Topics., 100a25 ff. (McKeon. op. cit.., pp. 188-189).

⁶¹ Ibid.., 101a26-37. (Ibid.., p. 189).

⁶² Cf. Aristotle. Topics and On Sophistical Refutations. (McKeon. op. cit.., pp. 188 ff. and 208 ff. respectively). Also cf. Aristotle. Posterior Analytics, I, Chapter xxxiii. (McKeon. op. cit.., pp. 256 ff.) Cf. also Grote. op. cit.., Chapter IX, pp. 378 ff. and Mure. op. cit.., pp. 215 ff.

VI. CONCLUSIONS

In concluding this survey of Aristotle's logic, it should be said that the roots of this thought lie within the Socratic-Platonic doctrine of ideas. The thing which truly is, is the universal. Knowledge of this is the conception, and it is regarded as being accurate knowledge of the universal. To this extent, as Windelband says, Aristotle⁶³ always remained a Platonist. He differed at the point of relation between the general and the particular. The Eleatic assumption had been that there was no such relationship; Plato working from that basis tried to modify it by seeing the need for this relationship and attempting to find it. It has been seen that the closest he came to his goal was a partial hierarchy of being. Aristotle was far from satisfied with this conclusion. Aristotle's own attempted solution will become more evident in the discussion of the Metaphysics. It is enough to say now that Aristotle refused to reduce the world to a unity, which seemed to be Plato's final goal, but divided actual existence into distinct and separate classes with their respective sciences and respective universal premisses. Even the Metaphysics, which is a science which takes as its limited data the universal principles of the other sciences, does not develop its subject-matter out of a principle of being. Therefore, the primary

⁶³ Wilhelm Windelband. A History of Philosophy, p. 133.

task of logic in Aristotle's mind was the recognizing of the correct relation between the universal and the particular. Logic is thus built upon a fundamental basis of abstract⁶⁴ thought.

The role of Aristotle in the history of logic is so large that it is almost impossible to fully evaluate. Warbeke suggests that Plato contributed the principles that correct reasoning depends upon the degree to which one systematically co-ordinates the facts of experience, but Aristotle actually investigated the thought processes in order to find the conditions and laws of correct procedure:

For this persistent, immense, and thoroughgoing labor, he is justly called the Father of Logic. He for the first time specifically segregated the problem of reasonableness (cogency of thought as such, and as controlled by relation to the external world) from psychological descriptions of how the mind acts, as well as from the metaphysical problem of reason's, or the mind's, ultimate

⁶⁴ Zeller. op. cit., pp. 271 ff.; and Windelband. op. cit., p. 133. Windelband seems to disagree with the assertion that Plato attempted to reduce the world to a unity. Zeller, however, agrees with the conclusions of this study at this point. It is the assertion of this paper, on what is felt to be good and adequate grounds (Cf. Chapter V), that Plato, while insisting upon the independent existence of the ideas above the world of sense, especially in his earlier dialogues, yet in his later dialogues especially attempted to solve the problem of the existence of the particulars on the basis of Being within Becoming as well as above Becoming. The adequacy of this system is not defended, but that the evident goal of such an attempt is a unity of a hierarchal form is defined and defended. Taking what seems to have been the earlier dialogues alone would lead logically to the position that Windelband maintains. A consideration of the latter dialogues also, makes it less sure. For the particular logical divergences which Aristotle makes from Plato's thought, cf. Harold Cherniss. Aristotle's Criticism of Plato and the Academy, Volume I, pp. 1-82.

nature. . . . His work also serves to put us on guard against expecting from Logic more than it can provide. For Logic tests conclusions. It does not of itself produce them. Aristotle, it is true, did not from the first make this assumption; but he came to this conviction as the result of long deliberation.⁶⁵

Not only is it difficult to estimate the place of Aristotle in the history of logic, it is also difficult to estimate the place of logic in the totality of Aristotle's thought. It is obvious from his writings that analysis, for the most part careful and cautious, penetrates all he attempts. Jaeger says that it determines every step he takes.⁶⁶ Therefore, not only can one see in Aristotle the first person to use real abstraction--"It was reserved for Aristotle's powers of observation to grasp it wholly in itself, with its own peculiar laws."⁶⁷--but also the first person to use it so consistently through his entire works. It became his methodology, the technique of his philosophical inquiries. In fact, the Organon is actually prolegomena to his other treatises and their conclusions.⁶⁸ But Gomperz does not hesitate to say that the formal Aristotelian logic is not only "a training-ground for subtle thinking" but also "a means of promoting

⁶⁵ John M. Warbeke. The Searching Mind of Greece, pp. 277-278.

⁶⁶ Jaeger. op. cit., p. 370.

⁶⁷ Loc. cit.

⁶⁸ Cf. Windelband, op. cit., p. 132; Friedrich Ueberweg. History of Philosophy, Volume I, p. 151; Albert Schwegler. History of Philosophy, p. 101; and Zeller. op. cit., p. 191.

correct thinking."⁶⁹

Aristotle's theory of knowledge shines through his logical treatises. These epistemological explications and implications are left for a review in a later section. However, there is one place, at least, which should be pointed out here, where Aristotle moves into or at least close to the realm of faith. Warbeke states it in this way:

Beginning thus with the senses, and never leaving them through all the formal processes of his Logic, Aristotle not only was able to plot the course of natural or cogent reasoning, but also recognized that at the beginning and at the end of our endeavors we find ourselves in touch with what defies analysis and cannot be argued about. Here again he was aware of the limitations of Logic.⁷⁰

This is important for it is at the very foundations of Aristotle's analytical structures that it occurs. It is the pinnacle of induction where intuition steps in and asserts a basic truth, which in turn becomes the basis for syllogistic inference. Not only so, it comes at the foundation of scientific, not dialectical, thinking. Aristotle asserted that it is a knowledge which is above demonstration and proof and is more of the form of intuition. Thus the mysterious element penetrated to the very foundation of the thinking of the master of analysis. He was sure that the content of the intuition is true and basic and even more important than the

⁶⁹ Gomperz. op. cit., p. 45.

⁷⁰ Warbeke. op. cit., p. 292.

conclusions of the syllogism, but the source of the intuition cannot be analyzed.⁷¹

⁷¹ For brief reviews of Aristotle's logic, cf. Eduard Zeller. Greek Philosophy, pp. 181 ff.; Frank Thilly. History of Philosophy, pp. 79 ff.; Benjamin Cocker. Christianity and Greek Philosophy, pp. 394 ff.; Johann Eduard Erdmann. A History of Philosophy, Volume I, pp. 136 ff.; Joseph A. Leighton. The Field of Philosophy, pp. 95 ff.; Windelband. op. cit., pp. 132 ff.; Ueberweg. op. cit., pp. 151 ff.; etc.

CHAPTER IX

ARISTOTLE'S METAPHYSICS

Turning from the logical treatises to the treatise Metaphysics or First Philosophy, as Aristotle called it, one begins a study of the science of first principles. Zeller points out that as Aristotle limited the sciences to certain specific data which were called primary truths, so Metaphysics is a science which is limited to the specific data of all first principles themselves.¹

I. THE CRITICAL PROBLEMS INVOLVED

Structural difficulties become apparent immediately when one begins a study of the Metaphysics. It does not appear to be a single finished work but is more of the nature of lecture-notes. It lacks a continuity of thought and has some sections which are possibly later additions written by pupils of Aristotle. There is not time to enter into the critical problems. W. D. Ross in his two volume work on the Metaphysics has discussed these problems quite thoroughly and his general conclusions are largely followed

¹ Eduard Zeller. Aristotle and the Earlier Peripatetics, Volume I, p. 273.

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in this paper. Actually the Metaphysics is made up of several shorter treatises in book form. Book A is an historical inquiry and since Aristotle often started his works in this way, the validity of this book as a work of Aristotle is not doubted. Book B introduces a list of about fourteen problems which are discussed more fully in the following books. With this as the main criterion, Ross feels that the following books are validated as being Aristotelian: A, B, Γ, E, Z, H, Θ, M, N, and I. These also give a fairly continuous work. Four books are thus eliminated.

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Attention is now focused upon these "Outlying Books," as Ross calls them. The books under scrutiny are α, Δ, K, and Λ. The first seems to break the unity between A and B; there is also evidence that it consists of notes taken by a pupil of Aristotle from one of the master's discourses. The second seems to be Aristotelian but is evidently out of place. The third is divided into two parts: the first part, 1059a18-1065a26, seems to be Aristotelian in thought and for the most part in language; the second part, 1065a26-1069a14, is evidently made up of excerpts made either by Aristotle or by a pupil from the Physics. The last book mentioned does not seem to have any real connection with the rest of the

2 Cf. W. D. Ross. Aristotle's Metaphysics, Volume I, "The Structure of the Metaphysics", pp. xiii-xxiii.

3 Ibid., p. xxiv.

Metaphysics; it must be considered to be an entirely independent treatise probably by Aristotle.⁴

With this in mind, the plan of this section will include: first, a discussion of the ten above-mentioned books which seem to be continuous in the Metaphysics; second, a discussion of Δ , the first part of K, and Λ with the above considerations in mind. Jaeger mentions the possibility of inserted fragments occasionally throughout the more certainly Aristotelian sections. These come most often at the ends of the books where there was supposedly room left on the roll or where a new length could easily be added.⁵ These will be kept in mind also as the various books are studied.

II. BOOKS A AND B

Aristotle began in Book A with a chapter in which he delineated the advance from sensation to theoretical knowledge. It is an advance from sensation, which he said is correct knowledge of particulars; through memory and experience; and through art, which he said is an advance over experience in that it knows causes of a thing as well as that it is so; to theoretical knowledge, which he says is Wisdom or knowledge of causes and principles. Wisdom is

⁴ Ibid., pp. xxiv ff.

⁵ Werner Jaeger. Studien zu Entstehungsgeschichte der Metaphysik des Aristoteles., pp. 161-162. Cited ibid., pp. xxx-xxxi.

characterized by knowledge of things as far as possible, though not in detail, by knowledge of things hard to know because they are so far removed from sensation, and by an ability on the part of the wise man to expound the causes. In short, it is in its fullest degree, something which God⁶ alone can possess but which men can possess in part. Therefore, metaphysics is the study of causes which determine the nature of reality as a whole, or as Zeller states it: "As Science in general has for its task the investigation of the grounds of things, so the highest Science must be that which refers to the last and most universal of the grounds of things."⁷ The causes which determine the nature of reality as a whole have been recognized by the earliest thinkers, according to Aristotle, but not with clarity. They are matter, form, efficient cause, and final cause. Ross points out that matter is not, however, present throughout reality for Aristotle; the prime mover and subordinate⁸ movers are pure forms.

Most of the rest of Book A contains a rather sceptical discussion of previous philosophical attempts from the early thinkers through Plato. Ross suggests that Aristotle felt here that he was looking fairly at the facts but that

⁶ Aristotle. Metaphysics, Book A, Chapters 1 and 2. (McKeon. op. cit., pp. 689-693).

⁷ Zeller. op. cit., p. 290.

⁸ Ross. op. cit., pp. lxxvii-lxviii.

actually his thought was colored especially by Plato.⁹ These earlier thinkers have been discussed previously in this paper with some reference to Aristotle's thought, and it will not be necessary to consult this material again.

Chapter Seven of Book A, along with Chapter Ten serves as a summary of the relevant material of the discussion of history. Jaeger suggests that these two chapters are alike and that the latter probably was an alternate chapter for the former which was meant to be inserted at this point.¹⁰ However, that they both are Aristotelian is not challenged at this point. Therefore, both will be discussed together.

Aristotle said that his predecessors were looking for first principles and they thought they had found them in one or more of the causes which have already been named: the material cause, the efficient cause, and the final or purposive cause. The last three named causes are the ones most exploited by earlier thinkers, but even these are not complete. The first-mentioned cause is not expressed distinctly but only hinted at in the doctrine of the Forms. Aristotle's chief complaint against these philosophic attempts seems to have seen that they neglected essential or formal cause.¹¹

⁹ Ross. op. cit., p. lxxvi.

¹⁰ Jaeger. op. cit., pp. 14-21. Cited by Ross op. cit., p. xxx.

¹¹ Aristotle. op. cit., Book A, Chapters 7-10. (McKeon. op. cit., pp. 702 ff.).

This is especially clear in his criticism of the doctrine of the Forms:

Above all one might discuss the question what on earth the Forms contribute to sensible things, either to those that are eternal or to those that come into being and cease to be. For they cause neither movement nor any change in them. But again they help in no wise either towards the knowledge of the other things (for they are not even the substance of these, else they would have been in them), or towards their being, if they are not in the particulars which share in them; though if they were, they might be thought to be causes, as white causes whiteness in a white object by entering into its composition.¹²

Book B discusses the whole series of problems which Aristotle planned to raise and to try to answer in the remaining part of the treatise. A brief review of the problems here is sufficient since they come up again in various forms: (1) Is one science able to treat all basic principles or causes? (2) Can such a science survey not only the basic principles of substance but also the common beliefs upon which all men base their proofs, including demonstrative proofs? (3) Can a single science be capable of dealing with all substances? (4) Does such a science deal not only with substances but also with attributes? (5) Are there other than sensible substances; if so, how many kinds? (6) Are the genera or the primary constituents of a thing the first principles? (7) If the genera are the first prin-

¹² Ibid., 991a8-15. (McKeon. op. cit., pp. 707-708. Cf. entire Book A. (McKeon. op. cit., pp. 689 ff.) and Ross. op. cit., pp. 114 ff.)

ciples, is it the highest genera or the lowest? (8) Is there anything apart from the individual? (9) Is each first principle one in kind or one in number? (10) Are the principles of perishable and imperishable things the same or different? (11) Are being and unity substances or attributes? (12) Are the objects of mathematics substances? (13) Do ideas exist as well as perceptual objects and objects for mathematics? (14) Do the first principles exist actually or potentially?¹³ (15) Are the first principles universals or individuals?

Ross says that for the most part these questions are faithfully dealt with although some assume different forms than the way they are raised in Book B. Therefore, the remainder of the Metaphysics, except for the four outlying¹⁴ books, centers around the questions asked in Book B.

III. BOOK Γ

In Book Γ, questions 1, 2, 3 (in part), and 4 (in part) find their Aristotelian answers. He asserted that there is a science which seeks to know Being (Ens) in toto while the other sciences seek to know certain sections of Being. It

¹³ Ibid. Book B. (McKeon. op. cit., pp. 715-731 and Ross. op. cit., pp. 221 ff.). The numbering of the problems does not co-ordinate completely with the numbering in the book. The numbering here has to do with the order of the problems as they are raised in Chapters 2-6.

¹⁴ Ross. op. cit., p. xxiv.

is therefore of Being as Being that one must grasp the first causes. This would naturally eliminate any elements which belong to Being by accident.

The question now is, In what way can a thing be said to be? There are several ways in which a thing may be said to be, but these all have their starting-point at one point, namely Substance ($\sigma\upsilon\sigma\tau\acute{\alpha}$). After giving an illustration of this in the realm of health, Aristotle said:

So, too there are many senses in which a thing is said to be, but all refer to one starting-point; some things are said to be because they are substances, others because they are affections of substance, others because they are a process towards substance, or destruction or privations or qualities of substance, or productive or generations of substance, or of things which are relative to substance, or negations of one of these things or of substance itself. It is for this reason that we say even of non-being that it is non-being. As, then, there is one science which deals with all healthy things, the same applies in the other cases also. For not only in the case of things which have one common notion does the investigation belong to one science, but also in the case of things which are related to one common nature; for even these in a sense have one common notion. It is clear then that it is the work of one science also to study the things that are, qua being.--But everywhere science deals chiefly with that which is primary, and on which the other things depend, and in virtue of which they get their names. If, then, this is substance, it will be of substances that 15 the philosopher must grasp the principles and the causes.

There are several things which stand out in this quotation. Firstly, the principle of Being is Substance. Secondly, a thing is said to be by the relation it sustains to Substance. Thirdly, since there is this common relation-

¹⁵ Aristotle. op. cit., Book I, 1003b6-18. (McKeon. op. cit., p. 732).

ship to Substance which is found in all things that are, one science can deal with all the principles of Being. Fourthly, yet the primary function of the science of total being is to investigate Substance from which all things derive and upon which all things depend.

Being and Unity are the same though the words are not completely the same in meaning. All varieties of each are alike and implicated together. Therefore, both Being and Unity with their varieties belong to First Philosophy and the principles of each are the data of that science. Thus the problem of the One and the Many are inevitably involved in the problem of Being.

Since the axioms of the mathematician are, in their highest generality, affirmations of Being as Being, these can only be taken for granted by the mathematician but also become the subjects of investigation by the first philosopher. This holds true for any natural philosopher as distinguished from a first philosopher. This is Aristotle's answer to question two.

Another principle which comes in for investigation is the Principle of Contradiction. Grote states this principle in this way: "It is impossible for the same predicate at the same time and in the same sense to belong and not to belong
16
to the same subject." This principle Aristotle felt is

16 George Grote. Aristotle, Volume II, p. 304.

the most firmly established one of all. He defends it in Book *Γ*, Chapter Four and following, but it is not necessary for his arguments to be discussed here.

One of the important things is seen when he pointed out that Protagoras' doctrine that what appears true is truth comes from the same source as the doctrine that both sides of a contradiction are true. This conclusion, Aristotle said, comes from observing the sensible world and at the same time holding intelligence and sense-perception to be identical and sense-perception to be true. Therefore, the contradictions of sense-experience must be true. Others, like the Heracliteans, seeing change, affirmed that nothing can be truly known. Aristotle asserted that both emphases, that contradictories are both true, or that contradictories are both false, are incorrect. Logically, one contradictory must be true and one must be false when they have to do with the substance of a thing. The views presented destroy themselves by their own inconsistency.

For he who says that everything is true makes even the statement contrary to his own true, and therefore his own true (for the contrary statement denies that is true), while he who says everything is false makes himself also false.¹⁷

¹⁷ Aristotle. op. cit., 1012b14-17. (McKeon. op. cit., p. 751).

There are ontological as well as logical difficulties with these contradictions. Those who affirm everything to be at rest and those who affirm all things to be in motion are both wrong. If everything were at rest, the same propositions would be both true and false. If everything were in motion, all propositions would be false. Aristotle explained this:

Evidently, again, those who say all things are at rest are not right, nor are those who say all things are in movement. For if all things are at rest, the same statements will always be true and the same always false--but this obviously changes; for he who makes a statement, himself at one time was not and again will not be. And if all things are in motion, nothing will be true; everything therefore will be false. But it has been shown that this is impossible. Again, it must be that which is that changes; for change is from something to something. But again it is not the case that all things are at rest or in motion sometimes, and nothing for ever; for there is something which always moves the things that are in motion, and the first mover is itself unmoved.¹⁸

IV. BOOK E

Book E elucidates the answer to question one and also comments on question three. It has already been shown that one science can treat all the basic principles because they all have their source in substance.¹⁹ It has also been shown

¹⁸ Ibid., 1012b23-33. (McKeon. op. cit., p. 751). Cf. Aristotle. op. cit., Book in entirety (McKeon. op. cit., pp. 731-751). Grote. op. cit., Appendix III. p. 301-319 and Ross. op. cit., pp. 250 ff.

¹⁹ Aristotle. op. cit., Chapters 1 and 2. (McKeon. op. cit., pp. 731 ff.).

that one science can deal with the totality of substance. However, the problems raised in these two questions were further dealt with by Aristotle when he distinguished the first philosophy from other sciences and showed the adequate basis for being. These considerations find discussion in the short Book E.

Aristotle began by noting that, whereas, every other science deals with the properties which belong per se to that particular portion of being which they are investigating, the science of being or first philosophy investigates the entity of being. Ontology is called upon to do what other sciences cannot do, namely investigate the essence of each science's separate genus and determine whether that genus has any real existence. It has already been pointed out in the Analytics that no separate science is either theoretical, or practical, or constructive. There are only two theoretical separate sciences, physics and mathematics, and the first science, ontology (called here theology). The rest are practical or constructive. Physical science deals with subjects which have within themselves the principle of change or motion; this science investigates for the most part the Substance or Form thereof, but not Form to the exclusion of Matter. Mathematics, on the other hand, studies objects immovable and separate from, or separable from, matter, neither

20 Ibid., 1004a2-9. (McKeon. op. cit., p. 733).

one of these theoretical sciences can investigate this. Aristotle said:

There must, then, be three theoretical philosophies, mathematics, physics, and what we may call theology, since it is obvious that if the divine is present anywhere, it is present in things of this sort. And the highest science must deal with the highest genus. Thus, while the theoretical sciences are more to be desired than the other sciences, this is more to be desired than the other theoretical sciences. For one might raise the question whether first philosophy is universal, or deals with one genus, i.e. some one kind of being; for not even the mathematical sciences are all alike in this respect-- geometry and astronomy deal with a certain particular kind of thing, while universal mathematics applies alike to all. We answer that if there is no substance other than which are formed by nature, natural science will be the first science; but if there is an immovable substance, the science of this must be prior and must be first philosophy, and universal in this way, because it is first. And it will belong to this to consider being qua being-- both what it is and the attributes which belong to it qua being.²¹

It should be noted that, though first philosophy is more universal than the rest, it does not comprehend the rest.

Before proceeding to Chapter Two of Book E, it should be noted that Jaeger feels that Chapters Two to Four of this book are later additions which were inserted to bridge the gap from the introductory portions of the Metaphysics to its more substantial portions. Ross suggests that this is not improbable but cannot be proved. At least nothing is said against the Aristotelian authorship of this section and, ²² therefore, the discussion includes this section.

²¹ Aristotle. op. cit., Book E, 1026a18-32. (McKeon. op. cit., p. 779).

²² Jaeger. op. cit., pp. 49-53. Cited by Ross. op. cit. p. xxx, cf. p. 350 of Ross; Jaeger. Aristotle, p. 209.

The discussion begins with a description of the four meanings of the term "being": (1) Being can mean accidental being (κατὰ συμβεβηκός); (2) Being can mean the "true" (ὡς ἰαληθεύς) with non-being meaning the "false" (ὡς ψεύδος); (3) Being can mean the Categories (κατὰ τὰ σχήματα τῆς καταγορίως); and (4) Being can mean the potential and the actual (δυνάμει καὶ ἐνεργείᾳ). There can be no philosophical speculation concerning the first because "that which is neither always nor for the most part, we call accidental."²³ There can, therefore, be no constant and unvarying cause of the accidental; these are amenable to the principle of Chance. (There must be such principles else all things would be caused by Necessity.) The second is also unamenable to scientific investigation because truth and falsehood lie not in the things themselves but in the act or intellection. Aristotle said:

But since the combination and the separation are in thought and not in the things, and that which is in this sense is a different sort of 'being' from the things that are in the full sense (for the thought attaches or removes either the subject's 'what' or its having a certain quality or quantity or something else), that which is accidentally and that which is in the sense of being true must be dismissed. For the cause of the former is indeterminate, and that of the latter is some affection of the thought, and both are related to the remaining genus of being, and do not indicate the existence of any separate class of being. Therefore let

²³ Aristotle. op. cit., 1026b31-32. (McKeon. op. cit., p. 700).

these be dismissed, and let us consider the causes and the principles of being itself, qua being.²⁴

V. BOOK Z

Book Z carries on the discussion of being in the two remaining meanings of the term. The ten categories are called Being because they are all related to an Essence. In an abstract form these categories do not exist but only as they are associated with a definite Essence or Individual Substance.²⁵ Therefore, the remaining nine categories are appendages to the first category, Substance. In every sense, this is first:

Now there are several senses in which a thing is said to be first; yet substance is first in every sense-- (1) in definition, (2) in order of knowledge, (3) in time. For (3) of the other categories none can exist independently, but only substance. And (1) in definition also this substance must be present. And (2) we think we know each thing most fully, when we know what it is, e.g. what man is or what fire is, rather than when we know its quality, its quantity, or its place; since we know each of these predicates also, only when we know what the quantity or the quality is.²⁶

At least four things can be said to be substance, the essence (τὸ τί ἦν εἶναι), the universal (τὸ καθόλου),

²⁴ Ibid., 1027b29-1028a4. (McKeon. op. cit., pp. 782-783) and Grote. op. cit., Appendix III, pp. 319-323.

²⁵ Cf. the earlier discussions on the treatise, The Categories.

²⁶ Aristotle. op. cit., Book Z, 1028a231-1028b2. (McKeon. op. cit., p. 783). Cf. Ross. op. cit., pp. xcix-ciii.

the genus (τὸ γένος), and the substratum (τὸ ὑποκείμενον). As Ross points out, Aristotle listed here the four claimants to the title of substance in the sense of the substantial element in individual things, not in the sense of individual substance.²⁷

Aristotle discussed the last first and in doing so pointed out that the substratum is that which can never be predicated of anything else but is always the subject of all predicates. (The use of the term "substratum" means in Aristotle's own words, "that which underlies a thing."²⁸) In one sense, matter is the nature of substratum; in another sense, form or shape; and in still another sense, the compound of the two. Aristotle illustrated his use of these terms in this way, "By the matter I mean, for instance, the bronze, by the shape the pattern of its form, and by the compound of these the statue, the concrete whole."²⁹ The problem becomes one of finding the prior element from which all else can be stripped away. Matter seems best to fit this picture, but matter is characterless and therefore is not capable of separate existence nor individuality. Ross points out that Aristotle could have substantiated his posi-

²⁷ Ross. op. cit., p. xciii.

²⁸ Aristotle. op. cit., 1029a1. (McKeon. op. cit., p. 785).

²⁹ Ibid., 1029a3-5. (McKeon. op. cit., p. 785).

tion here by the use of a more natural argument against matter, namely that in trying to find the reality of which attributes are predicated, matter leaves us with that of which nothing can be predicated.³⁰ The combination of form and matter can be easily dismissed as substance in the truest sense since it is obviously a posteriori³¹ to either of the two elements in the compound.

Aristotle had not discussed form as the possible substratum, but he turned his attention to the first of the four meanings of substance, essence. In doing so, he did not set form aside but regarded it as an essence rather than a substratum. He first eliminated the elements of accident since they are not always and unvariably attributable to a being. He also eliminated any elements which participate in a thing but are not essential to its being as being. He warned that the essence of a thing cannot be defined by the use of the name of the thing. The problem as to whether a combination of a substance with another category can have an essence arises. The answer is, No, in that essence is a term used to describe substance alone. These conditions being met, the question arises, What can meet these conditions and therefore have an essence? Aristotle answered that only the species, the individuals, have an essence which can be given

³⁰ Ross. op. cit., Volume II, p. 165. (27).

³¹ Cf. ibid., Volume I, pp. xciii-xciv.

a pure definition--that is, a definition which is more than a name or a description but is a "formula of its meaning."³² This is because only species or individuals have elements that are free from accident and participation in other things. However, there is, in a secondary sense, an essence of a quantity or any other category, but in the primary sense true essence refers only to substance and such essence can be found only in the species.³³

Since it is the individuals which have an essence, Is each particular thing and its essence the same or is such an equation possible? The answer Aristotle gave is that all things, whether ideas or not, if they are self-subsistent, must be the same as their essences. This is clearly seen in that to know a thing is the same as to know its essence. Also the definition of thing equals the definition of its essence; its unity and its essence are one. If this were not true, the result would be infinite regress in that if the essence of one is different from the one, the essence of the essence of one is different from the essence of one, ad infinitum.

Clearly, then, each primary and self-subsistent thing is one and the same as its essence. The sophistical

³² Aristotle, op. cit., 1030a14-15. (McKeon, op. cit., p. 787). Cf. also Ross, op. cit., Volume II, pp. 166-168.

³³ Ibid. 1031a1 ff. (McKeon, op. cit., p. 789). Cf. Ross, op. cit., pp. 172-173.

objections to this position, and the question whether Socrates and to be Socrates are the same thing, are obviously answered by the same solution; for there is no difference either in the standpoint from which the question would be asked, or in that from which one could answer it successfully. We have explained then, in what sense each thing is the same as its essence and in what sense it is not.³⁴

Inserted at this point are three chapters which discuss becoming instead of being. The latter is taken up again in Chapter Ten. The purpose of this insertion is not obvious on the surface but is probably more evident later on in this section.

Things come to be things in one of three ways: (1) by nature; (2) by art; or (3) spontaneously. All things become things by the agency of things and from things. In natural genesis, all things come from matter by the agency of things already having natural existence, and become natural. All other genesis is called making, and it proceeds from art, faculty, or thought. Spontaneous becoming is recognized but investigation of it is set aside temporarily. Genesis other than natural genesis, which, is now called "artistic genesis," presupposes the form of the product in the soul of the artist. It begins with thinking and proceeds to making. But though the product begins with thinking, yet the making involves the use of pre-existent elements. These elements

³⁴ Ibid., 1032a5-11. (McKeon. op. cit., p. 791).
Cf. Ross. op. cit., pp. 175-176.

are matter. Thus in artistic production the source is matter, the agent is the form in the soul, and the product is matter formed.

It is clear in the above discussion that neither matter nor form come to be but only the combination of the two. Both matter and form are the substratum which was already introduced in this discussion. If they were made, then they would have to be made out of something else ad infinitum. Therefore, neither matter nor form are made. What is made is the concrete thing by the putting of form into matter.

It is obvious, then, from what has been said, that that which is spoken of as form or substance is not produced, but the concrete thing which gets its name from this is produced, and that in everything which is generated matter is present, and one part of the thing is matter and the other form.³⁵

Does this mean the necessary existence of forms in the Platonic sense as apart from the individual things? Aristotle answered in the negative: If that were the case, no individual thing ('this') would have come into being. The form means a "such" and a "such" cannot make a "this." The causer of the product is the agent not the form. That being the case no ideal house, for instance, can fit into the process of making a particular house. Therefore, the forms, in the Platonic sense, have no self-subsistent substance. Even in the case where the form pre-exists actually

³⁵ Ibid., 1033b16-18. (McKeon. op. cit., p. 794).

instead of merely conceptually--that is, in natural generation, it does not exist apart from particular instances. Ross says, "Form is eternal only by virtue of the never-failing succession of its embodiments."³⁶ Chapter Nine applies this principle to spontaneous production and also points out that as the form of substance is not produced, so the form of other categories are not produced.³⁷

The problem of being as essence is continued in Chapters Ten through Twelve. The problem in these chapters centers around the relation of the whole to its parts and vice-versa. The first question is, Must the definition of the whole contain the definition of the parts? The answer is, Some must and some must not. The criterion is whether the parts are parts of the form or of the matter. If the parts are parts of the matter, no definition of essence, or a priori, have anything to do with these parts: the whole, being the form, is alone definitive as to essence. (The illustration is a circle which has its form in its wholeness.) If, however, the parts of a thing are parts of the form, as in the case of words which are made up of letters and are dependent on those letters for their essence as words, a definition of essence must consider these; the whole form is depended upon the form

³⁶ Ross. op. cit., Volume I, p. cxxiii.

³⁷ Ibid., Volume II, pp. 180 ff.

of the parts. However, the concrete individual, whether sensible like a bronze circle, or intelligible like a mathematical circle, is made up of combination of formal and material parts. Since true definition has to do with formal elements only, the concrete individual--this particular circle for instance--is not definable and is therefore not knowable, except by intuition or perception. This is due to the fact that matter alone is unknowable while form is knowable because definable; the combination in any particular thing makes it only partly knowable, or knowable in an undemonstrative form.

As to whether the parts are prior or not to the whole, Aristotle regards that which is substantial (essential) to be prior. Material sections are always posterior; formal sections may be either prior or posterior to the whole, but in either case they are prior to the material sections.³⁸

But all of this is dependent upon the determination as to which parts are of the form and which are of the concrete individual. When the form is recognizably the same form when supervened upon different materials the materials are evidently no part of the form. However, there are some forms which are so associated with specific matter that they cannot be easily conceived apart from matter and therefore remain at least partially undefinable. Man himself is such a thing. The form of man is always found in flesh and bone,

³⁸ Ibid., pp. 194-196.

and the form never is found in any other matter. Therefore, it is a mistake to try to define to the extent of abstracting form from matter when some things have this essential form in this particular matter. However, Aristotle seems to have vacillated at this point for he proceeded to show that the soul of man is the primary substance while body is matter. A man may be identified with either his soul or the concrete unity of soul in body.

In summary of Aristotle's discussion of Being as Essence, the following paraphrase by Ross of the highlights of Aristotle's own summary is helpful.

We have stated generally (1) what essence is and in what sense it is self-subsistent, (2) why the definition of some things contains the parts of the things while that of others does not, (3) that the material parts are not present in the definition (for they are not parts of the substance as defined but of the concrete substance, which in its union with matter cannot be defined but can only be defined according to its primary substance, the indwelling form, e.g. hollowness as opposed to snubness); but in the concrete substance (e.g. the snub nose) there is matter; (4) that primary substances (i.e. those which do not imply the presence of something else which is its substratum), e.g. crookedness, are the same as their essence, while concrete things involving matter, and unities of substance with an accident, e.g. Socrates + musical, are not the same as their essences.³⁹

Therefore, the essence of a thing is the form and the form is defined by that which is the essential form of the last differentia in the series of division under a genus. The

³⁹ Ibid., p. 202. Cf. Aristotle. op. cit., 1037a21 ff. (McKeon. op. cit., p. 802).

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genus is not the form.

It is clear from this discussion that Aristotle felt that substance is essence primarily, but the question now is, Is not the universal (or the genus, which is a form of universal) substance? To this question, Aristotle answered an emphatic, No. The substance of a thing is that which is peculiar to it; the universal is common to many things. Also, a universal is predicated of a subject, but a substance can never be predicated of a subject. (This is opposed to his own discussion in the Categories where substance is listed as a predicate or category. However, it is clear that this latter concept of substance is more truly Aristotelian. Substance is not what the subject possesses but something which it most truly is at the deepest levels.) No predicate can indicate a "this" but only a "such." A composite substance must be made up of substances not qualities or else non-substance will be prior to substance and this cannot occur in definition or in practice. However, a substance cannot consist of other substances which actually exist, for what is actually two is not actually one. This raises a problem which Aristotle indicated he would discuss later, namely if

40 Ibid., pp. 205-206. Cf. Aristotle. op. cit., 1037b7 ff. (McKeon. op. cit., pp. 803-804). Jaeger regards Book Z, Chapter 12, as being a fragmentary addition between 1-11 and 13-17 and a doublet of Book H, Chapter 6. Cf. Jaeger. Studien zur Entstehungsgeschichte der Metaphysik des Aristoteles., pp. 53-62. Cited by Ross. op. cit., pp. xxx-xxxi.

substances cannot actually be compounded, how can they be
⁴¹defined?

Having already critized the Platonic approach to being, Aristotle became even more succinct in his denunciation in Chapter Fourteen of Book Z. The ideas, he declared, are not substance. There is no need to discuss this chapter since it is largely an illustration of the principles Aristotle talked of in the previous discussion of universals and substance. ⁴²

Most so-called substances are really potentialities, according to Aristotle. They are not true unities but actually aggregates which are felt to be fused into one, but since "being" and "unity" are one in that the substance of one thing is one and the substance of several things is still one. But even being and unity are not true substances (although Aristotle said that they are more substantial than "principle," "element," or "cause" are) for they are common while substance is individual--one thing cannot exist in many places at once, while what is common can. Therefore, no universal exists apart from particulars. If the forms are substances, the believers in the forms are right in saying that they exist apart from the particulars, but they are wrong in asserting

⁴¹ Ibid., pp. 208-209. Cf. Aristotle. op. cit., 1038b1 ff. (McKeon. op. cit., pp. 804-806). He never seems to answer this problem.

⁴² Ibid., 1039a23 ff. (McKeon. op. cit., pp. 806-807).

that the one in the many is a form. They cannot say what the eternal substances are without making them the same as the perishable particulars plus the addition of the term "itself," that is, for instance, "horse itself," "man himself." Yet there must be eternal substances which do not perish with perishable particulars, but these are clearly not the universals. No universal is a substance, and no substance is compounded of substances.

In concluding Book Z, Aristotle indicated that the true view of substance is that it is primarily form and form is essence, although it is an element of the substratum also, for this statement answers the question why a thing is what it is.⁴³

Aristotle passed from the consideration of static reality in the form of substance to a consideration of change. It is in this connection that the expressions "potentiality" and "actuality" become used more often. In sensible substances, which constantly change, the substratum is basic. Thus there is a sense in which the substratum is substance. Matter is included in substratum and matter is regarded to be that which is potentially a "this." Form is an actual "this;" when the two, matter and form, are

⁴³ Ibid., pp. 221-222. Cf. ibid., Volume I, pp. cxi ff. Cf. Aristotle. op. cit., 1041a6 ff. (McKeon. op. cit., pp. 810-811). For an excellent discussion of Book Z, cf. Grote. op. cit., Appendix III, pp. 323 ff.

combined--that is, the potential and the actual--the result is that which is subject to generation and destruction. There are many differentia of forms which can be united with matter. Therefore, there is a difference between the concrete substance and the abstract substance, the essence. The former is capable of being generated and destroyed but the form is eternal.

Thus Aristotle clearly showed that essence as abstract and eternal substance or form is combinable with the substratum of matter to produce a concrete substance which can be generated and destroyed. The problem is, however, How can this concrete substance be defined? or How can concrete substance be regarded as one, as substance must be? Some try to solve this unity by "participation" as Plato attempted; some try to explain it to be "intercourse," "composition," or "connection." However, the difficulty is that those who propose these formulae look for a difference between potentiality and concrete reality and try to find a unifying formula. This is a mistake for there is no unity between potentiality and concrete reality, because that which is potential is not real and that which is real is no more potential. Therefore, there is no uniting of the two; what is involved is an efficient cause which makes potential things real. Aristotle's own words may clarify this:

Owing to the difficulty about unity some speak of 'participation,' and raise the question, what is the

cause of participation and what is it to participate; and others speak of 'communion', as Lycophron says knowledge is communion of knowing with the soul; and others say life is a 'composition' or 'connexion' of soul with body. Yet the same account applies to all cases; for being healthy, too, will on this showing be either a 'communion' or a 'connexion' or a 'composition' of soul and health, and the fact that the bronze is a triangle will be a 'composition' of bronze and triangle, and the fact that a thing is white will be a 'composition' of surface and whiteness. The reason is that people look for a unifying formula, and a difference, between potency and complete reality. But, as has been said, the proximate matter and the form are one and the same thing, the one potentially, and the other actually. Therefore it is like asking what in general is the cause of unity and of a thing's being one; for each thing is a unity, and the potential and the actual are somehow one. Therefore there is no other cause here unless there is something which caused the movement from potency into actuality. And all things which have no matter are without qualification essentially unities.⁴⁴

It is also clear that Aristotle was here using the term "actual" not only to apply to forms themselves but to the concrete reality which is a combination of both form and matter.

VI. BOOK Θ

Aristotle carried on the discussion of potentiality and actuality in Book Θ. Potency, *δύναμις*, may mean either power or potentiality. In the first sense, potency means the originative source of change. This means that thing which causes another thing to change. In a derived sense,

⁴⁴ Aristotle. op. cit., 1045b8-24. (McKeon. op. cit., pp. 819-820). Cf. the entire Book H. (McKeon. op. cit., pp. 811 ff.). Cf. Grote. op. cit., pp. 349 ff. and Ross. op. cit., Volume I, pp. 226 ff.

potency also means that which has the capability of being changed. In the former sense, there is a potent agent; in the latter sense, there is a potent patient. But there is a difference between an agent and a patient. Therefore as far as a thing is an organic unity it cannot be acted upon by itself; a thing in its organic unity cannot be both agent and patient. Some potencies are rational and some are irrational. The former may result in contrary consequences; the latter have one result only. This means that potencies which are rationally originated can be either for good or for evil. The implication is, however, that the irrational power of being able to do the thing in the first place underlies rational potencies.⁴⁵

There are some, notably the Megaric school, who say that potency exists only when there is actuality. That would be the same as saying, indicating Aristotle, that a man who is not seeing and hearing at a given time is incapable of seeing and hearing, and that which is not happening is incapable of happening. This would make change impossible. To avoid these consequences, one must distinguish carefully between potency and actuality. These views make potency and actuality the same. Aristotle said:

⁴⁵ Cf. Ross. op. cit., Volume I, pp. cxxiv-cxxv.

And a thing is capable of doing something if there will be nothing impossible in its having the actuality of that of which it is said to have the capacity. I mean, for instance, if a thing is capable of sitting and it is open to it to sit, there will be nothing impossible in its actually sitting; and similarly if it is capable of being moved or moving, or of standing or making to stand, or of being or coming to be, or of not being or not coming to be.⁴⁶

Thus actuality is associated with movement and is connected with complete reality as well as with form. Therefore non-existent things cannot move. Potential things are non-existent (although not all non-existent things are potential) and cannot move and are not real. It is only as these potential things move and become actual that they are in the realm of complete reality. Not only so, but the impossible and the false are not the same. To regard a non-existent thing, which is capable of existence--that is, is potentially existent--, to exist is a falsehood; but nothing is then said against the possibility that it may some time exist.⁴⁷

Potency is acquired and actualized when the agent and the patient meet in the way which is appropriate to their potency. This holds only for irrational potencies; rational potencies do not necessarily so result. Since the

⁴⁶ Aristotle. op. cit., 1047a24-29. (McKeon. op. cit., p. 823).

⁴⁷ Cf. Ross. op. cit., p. cxxvi-cxxvii.

results of rational potencies are contraries, only one or the other result. Therefore, there is involved in a rationally potent resultant the presence of the agent and the patient as in irrationally potent resultants, but there is the addition of choice or will which determines the direction in which the resultant will be expressed.

For the rest of Book Θ , except for Chapter Ten, Aristotle discussed actuality more completely. Actuality is to potency as waking is to sleeping. It is related to potency through movement; it is related to matter through substance. (The infinite exists potentially only for knowledge for it cannot ever have a separate existence.) However, all movement is not actuality, for actuality in the strict sense is movement completed. In fact, actuality and movement differ in that the former has its end in itself--it is completed movement not in the sense of cessation of movement but movement which is an end in itself and does not move toward an end. It therefore seems to be a correct conclusion to say that Aristotle was indicating that potentiality becomes actuality through movement (change). But actuality is not devoid of movement itself. This distinction is very important as Ross indicates; "This distinction has important applications both in theology (in the doctrine of the divine 'activity of immobility') and in ethics (in the doctrine

48 Cf. Ross. op. cit., pp. cxxvii-cxviii.

that neither happiness nor pleasure is a process, but an activity or its accompaniment.)"⁴⁹

When does a thing exist potentially? When the source of actualization is external, a thing is potentially another thing providing the agent desires, as an artist in an artistic production, and when nothing in the patient hinders. When the source of actualization is internal, a thing is potentially another thing providing nothing external hinders and the nature of the thing is such as to cause it to change. Thus when things are said to be of something else, as a casket of wood, that which they are "of" are potentially them. If there is something which is not of something else, this is prime matter--the substratum matter which is not a "this." This holds true for accidental attributes also in that the substance underlies the accidental attributes.

Which is prior, actuality or potency? Aristotle answered this question by showing the three-fold priority of actuality. Actuality is prior to potency in definition, in time, and in substance. It is prior in definition, for to say a thing is capable of becoming a certain thing presupposes a knowledge of what it is capable of becoming. Actuality is prior in time because an actual member of a species must precede any potential member--that is, a po-

⁴⁹ Ibid., p. cxxviii.

tential individual is actualized by another individual of the same type, such as man by man, etc. Actuality is also prior to potency in substance in that that which is posterior in genesis possesses the form of that which is prior. Also the end toward which the process of actualization moves is the actual; for instance, animals have sight in order to see, instead of seeing in order to have sight. Moreover, matter exists potentially because it can come to form; when it exists actually it is in its form. Therefore actuality is form or substance and exists prior to potency in the sense that eternal things are prior to perishable things. No eternal things can exist potentially, but everything that is capable of being is also capable of not-being, and thus exists potentially. The former, eternal things which are actual can exist without the latter, but the latter cannot exist without the former. Therefore the former is prior to the latter.⁵⁰

The last chapter of Book Θ deals with the nature of truth. This chapter has been questioned as to its authorship and place in the metaphysical doctrine of Aristotle. Ross indicates that some men, notably Schwegler and Christ, treat

⁵⁰ Ibid., pp. 258-259. Chapter Nine of Book Θ is omitted for in it Aristotle added miscellaneous remarks regarding actuality and potency which are not at the core of his thought. Cf. ibid., pp. 266-267 for a discussion of this chapter.

the entire chapter as the work of an editor; other men like Bonitz and Bullinger regard it not only as Aristotelian but as fitting into his metaphysical discussion in its rightful place. Jaeger regards it as Aristotelian but that it was inserted here out of context, because there was some room at the end of a roll. It is difficult to decide, but, as Ross says, there is no reason for doubting that the chapter is a work of Aristotle. Also, in Book E 1027b28, Aristotle signified that he would discuss truth and falsity later. With these considerations in mind, it seems legitimate to regard this chapter as the work of Aristotle and to consider it in this place, even though it might not tie in too well with the context of Aristotle's discussion. (It does not seem to be entirely out of place for it presupposes some⁵¹ of the previous discussions.)

The terms "being" and "not-being" have been used with reference to the categories, and with reference to potency and actuality, now being and not-being with reference to truth and falsity is discussed. This is actually a problem in epistemology and the nature of thought. Truth is thinking that to be united or divided which is united or divided, respectively; error is a state contrary to the facts. But when is truth present? A person is not white because he is thought to be white; he is white and therefore is thought

⁵¹ Ibid., Volume II, p. 274.

to be white. Clearly truth has to do with the co-ordination of the object and its attributes with the content of the concept of the object and its attributes. When two things are united in thought as subject and attribute, the resulting composite is either true or false depending upon the way in which they have been combined. But if one thinks of two things united, must he not first think of them separately? (This seems to be the meaning of what Aristotle said, according to Ross.)⁵² Aristotle answered, No, for things which are not composite cannot be false. When one considers subjects and attributes in combination, he thinks in terms of truth and error, and his judgment is one of affirmation and negation; but when one considers a subject by itself or an attribute by itself, no such judgment can be made. In the strict sense of the term no judgment can be made at all; what is made is an assertion which results from contact. The former comes within the area of opinion; the latter in the area of knowledge. Thus in the latter ignorance can only mean non-contact, and error is not possible except by accident.

About the things, then, which are essences and actualities, it is not possible to be in error, but only to know them or not to know them. But we do inquire what they are, viz. whether they are so such and such a nature or not. . . .

⁵² Ibid., p. 275.

And truth means knowing these objects, and falsity does not exist, nor error, but only ignorance--and not an ignorance which is like blindness; for blindness is akin to a total absence of the faculty of thinking.⁵³

VII. BOOK Λ

Books I, M, and N which go to make up the supposed main stream of the Metaphysics are regarded by Brandis, according to Grote, and most others as being somewhat outside the discussion of the core of Aristotle's metaphysical doctrines. This would mean that the main metaphysical discussion comes to an end with Book Θ , which has just been considered. Since this is the recognized case, the discussion of Aristotle's Metaphysics is at an end.⁵⁴ However, there is an area which has not been accounted for entirely yet, namely the outlying books which do not seem to fit into the main stream of Aristotle's Metaphysics. Book ω is questioned as to its Aristotelian authorship and therefore no attention is given to its content. Book Δ is a philosophical lexicon containing philosophical terms, which Aristotle used, with their definitions. This is not dis-

⁵³ Aristotle. op. cit., 1051b30-32, 1052a2-4. (McKeon. op. cit., p. 834). For the entire Book Θ , cf. McKeon. op. cit., pp. 820-834 and also Ross. op. cit., pp. 239 ff. and Grote. op. cit., pp. 358 ff.

⁵⁴ Grote. op. cit., p. 301. Also Ross in his introductory discussion of the metaphysical doctrine of Aristotle stops with Book Θ .

cussed since the terms used in this paper seem to be sufficiently clear from their contextual usages. Book K is divided into two parts; the second part seems to contain extracts from the Physics and the first part seems to contain material that has been discussed before but in a shorter form. This leaves only Book Λ which Grote includes in his metaphysical discussion but which Ross regards as a theological work.⁵⁵ Since it comes within the bounds of the Metaphysics and perhaps clarifies some of the earlier discussions in the Metaphysics as well as extending them, some attention should be given to it.⁵⁶

The discussion in Book Λ begins with a consideration of substance in relation to the entire universe. If the universe is a whole, then substance is its first part; if it is a series, then substance is prior to the other categories. There are three kinds of substance: the perishable sensible, the eternal sensible, and the unchangeable. The first two are the subject of physics; the last, of metaphysics. Change is from one contrary to another, or, in other words from something which is to something which is not. But to have such

⁵⁵ Grote. op. cit., p. 301 and pp. 369 ff. and Ross. op. cit., Volume I, pp. xxvii ff. and pp. cxxx ff. For a discussion of the outlying books mentioned in this paragraph, cf. Ross. op. cit., pp. xxiv ff. and earlier in this chapter.

⁵⁶ For a discussion of the dating problem for Book Λ , cf. Jaeger. Aristotle, pp. 219 ff. and Ross. op. cit., Volume II, pp. 346-347.

a change, there must be a substratum, matter, which remains even through change. There are four kinds of change: (1) In respect to the "what" or the "this" there is change by simple generation and destruction. (2) In respect to quality there is change by alteration. (3) In respect to quantity there is change by growth and diminution. (4) In respect to place there is change by locomotion. Change is from the potential to the actual and is governed by three principles: form, privation, and matter. Neither matter nor form, in the final product, is generated, for in all change something is changed by something into something--that is, matter is changed by proximate mover into form.

Every substance comes from another of the same kind of substance whether the change is by art, by nature, by luck, or by spontaneity. In the first case, the causative agent is in something else; in the second the causative agent is within the thing itself; in the third, there is an absence of art; and in the fourth, there is an absence of natural processes. At any rate, no ideas are needed, for the individual produces the individual of the same class and each specific art is the cause of the specific result.

The causes of different things are different in that the details of the existence of different things are different, yet by analogy all sensible things have the same basic elements: form, privation, and matter. These are the

internal causes of change in all things that change, yet there are external causes also. The immediate or moving cause is an individual like the thing that is being caused. This is the efficient cause; however, in art, the efficient cause is also the formal cause in that the form is the immediate external cause of an artistic product. Beside these causes there is the first mover which makes change possible. Since all things can be reduced to substances which exist apart, the causes of all things are the same; movement cannot exist without substances. Not only so, all things have the same principles of potentiality and actuality. The form (if it is separable), the concrete result, and the privation exist actually; the matter exists potentially. Some causes can be stated universally; some cannot. But even if they could, the universal does not exist, except in the mind of man--man is the cause of man; there is no universal man. Thus there are as many different causes as there are individual contraries, but the causes are the same or analogous in different categories, i.e., matter, form, privation, and mover.

Since, however, even substances are generated and destroyed, all things are perishable; but movement itself and time which is the same as motion or an attribute of it, cannot be perishable. Therefore, there must be eternal substance which cannot be generated or destroyed. Such eternal substance must be the source of change--unlike Plato's doctrine

--or else there is no reason for positing it. But such substances must be actual, not potential, or else motion will not be eternal. The seeming priority of the potential is not correct, for the priority of actuality is necessary for the actualizing of the potentialities. Matter cannot set itself in motion; this is where the early Greek thinkers and Plato failed, according to Aristotle. But there is a uniformity and a variety in motion, change, or cause. There are certain motions for certain things and yet there is a cosmos of motion. Therefore, there must be something whose activity varies and yet is uniform, in short, a prime mover.

What is the nature and mode of operation of the first mover? It is clear that there must be something which is in incessant motion. But behind all motion there must be an eternal, unmoved mover which is eternal substance and actuality. Since all things that move are potentials in that they are capable of being other than they are, they have a contingency, a liability to spatial motion, though not to change in substance. The unmoved mover has no contingency and exists by necessity. On such a principle the physical universe depends. But since life is the actuality of thought, the unmoved mover must have life since he is pure actuality.

Aristotle himself said in concluding this chapter:

It is clear then from what has been said that there is a substance which is eternal and unmovable and separate from sensible things. It has been shown also that this substance cannot have any magnitude but is without parts and indivisible (for it produces movement through infinite time, but nothing finite has infinite power;

and, while every magnitude is either infinite or finite, it cannot, for the above reason, have finite magnitude, and it cannot have infinite magnitude because there is no infinite magnitude at all). But it has also been shown that it is impassive and unalterable; for all the other changes are posterior to change of place.⁵⁷

The next question which Aristotle discussed was the number of eternal moving principles. Since every eternal motion requires an eternal cause, each eternal motion must have an unmoved mover. These unmoved movers must be substances since that which is moved is substance. Mover is prior to moved and only substance can be prior to substance. These eternal motions which require eternal unmoved movers are the motions of the planets; therefore, there are as many unmoved movers as there are planets. Astronomy must give the exact number. However, there is one physical universe, for if there were more than one universe, there would have to be a cause of each. But all things which are many in number have matter and are many because they have matter. They would all have the same form since it is common to individuals. But prime essence has not matter for it is pure actuality; therefore, the Prime Mover and the universe is one in number and definition.

This Prime Mover is also Prime Intellect, and thus the question of the mode of existence of this Intellect is the next problem. If it thinks nothing, it is worthless; if it thinks but its thinking depends upon something else,

⁵⁷ Aristotle. op. cit., 1073a2-12. (McKeon. op. cit., p. 881).

it cannot be of the best substance--its substance would be potency. If it is a potency the continuity of its thought will be laborious and better than the thing itself; its object will also be nobler than it. Mere thinking is not the best since its potency might be actualized in the worst possible object. Thus Intellect must think the best thing in the universe and that is itself. But how can this be? All apprehension whether knowledge, perception, or opinion has something other than itself as its object. Also, is it thinking or being thought--the act or the object--that which gives reason its goodness? Aristotle answered by saying that when the object is immaterial it is identical with the subject. The object in this case is not composite either, for everything immaterial is indivisible. The divine self-thought throughout eternity possesses what human thought or thought of composite beings possess over a period of time--that is, the highest good for Supreme Intellect is known moment by moment throughout eternity and is not dependent upon a lapse of time for its fruition since Supreme Intellect is Pure

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Actuality. Good exists immanently in the world because it exists transcendently in the Supreme Intellect, God, who produces good by ordering all things for the common end.

58 Ross. op. cit., Volume II, p. 399.

Zeller says that this is the first attempt at a scientific
 59.
 basis for Theism.

VIII. CONCLUSIONS

In reviewing the metaphysical doctrines of Aristotle, Friedrich Ueberweg's penetrating power of analysis sums up the Aristotelian doctrine admirably:

In the "First Philosophy," or, as it was subsequently termed, the *Metaphysics* of Aristotle, the principles common to all spheres of reality are considered. The number of these principles, as given by Aristotle, is four, viz.: Form or Essence, Matter or Substratum, Moving or Efficient Cause, and End. The principle of Form or Essence is the Aristotelian substitute for the Platonic Idea. Aristotle argues against the Platonic (or, at least, what he held as the Platonic) view, that the Ideas exist for themselves apart from the concrete objects which are copied from them, affirming, however, on his own part, that the logical, subjective concept has a real, objective correlate, in the essence immanent in the objects of the concept. As the one apart from and beside the many the Idea does not exist; none the less must a unity be assumed as (objectively) present in the many. The word substance (*οὐσία*) in its primary and proper signification belongs to the concrete and individual: only in a secondary sense can it be applied to the Genus. But although the universal has no independent existence apart from the individual, it is yet first in worth and rank, most significant, most knowable by nature and the proper subject of knowledge. This, however, is true, not of every common notion, but only of such notions as represent the Essential in the individual objects. These universal notions combine in one whole all the essential attributes of their objects, both the generic

59 Zeller. op. cit., p. 399. Cf. Aristotle. op. cit., Book A. (McKeon. op. cit., pp. 872 ff.) and Ross. op. cit., pp. 346 ff. Cf. also Ross. op. cit., Volume I, pp. cxxx ff. and Grote. op. cit., pp. 369 ff. The last part of the last chapter of Book A has not been discussed since it is a defence more than a constructive statement.

and the specific attributes; they represent the essential Form, to denote which Aristotle employs the expressions *εἶδος, μορφή, ἡ κατὰ τὸν λόγον οὐσία* and *τὸ τί ἐν εἶνα* [form, intelligible or notional essence.--Tr.]. The matter in which form inheres is not absolutely non-existent; it exists as possibility or capacity (*δύναμις, potentia*). Form on the contrary, is the accomplishment, the realization (*ἐντελέχεια, ἐνέργεια, actus*) of this possibility. Relatively, however, matter may be styled non-existent, in so far as it denoted the as yet uneffected existence of the finished shape or thing (in which form and matter are united). The opposite of entelechy or actuality is deprivation, want, non-possession (*στέρησις*). No matter exists altogether deprived of form; the idea of mere matter is a pure abstraction. But there does exist an immaterial form-principle, and this principle is the form which has "separable" or independent existence (*χωριστόν*), in distinction from the inseparable forms which inhere in matter. Form, in the organic creation, is at once form, end, and moving cause. Matter is the passive, determinable factor, and is the ultimate source of imperfection in things. But it is also the principle of individuation in things, form being not (as Plato asserts) the ground of unity, but, ~~only~~ of homogeneous plurality. Motion or change (*κίνησις*) is the passage of potentiality into reality. All motion implies an actual moving cause. Now, in the sphere of existence we find included that which is perpetually moved and that which both moves and is moved; there exists, therefore, a tertium quid, which is always imparting motion but is itself unmoved. This tertium is God, immaterial and eternal Form, the pure Actuality in which is no potentiality, the self-thinking Reason or absolute Spirit, who, as absolutely perfect, is loved by all, and into the image of whose perfection all things seek to come.⁶⁰

The central point of this metaphysical system, and the whole philosophy of Aristotle, is what Windelband calls, "this new conception of the cosmic processes as the realization of the essence in the phenomenon." This differs from the previous philosophies, especially Platonism, which find eternal causes

⁶⁰ Friedrich Ueberweg. A History of Philosophy, Volume I, pp. 157-158.

which differ from the phenomena themselves. For instance, Democritus regarded atoms and their motion as causing phenomena and Plato regarded the ideas as doing so; in each case the cause is something other than the phenomenon itself.⁶¹

There is no point in a discussion of the criticisms of these metaphysical views since the motive of this study is largely descriptive and inductive. There is no point in discussing the relation of Aristotle's thought to the thought of his teacher, Plato. Some hold Aristotle to be a modified Platonist because of his maintenance of the forms; some consider him to have had a radical break with the philosophy of Plato because of his denial of the doctrine of the external forms or ideas.⁶²

However, it is important to consider the relation the Metaphysics has to Aristotle's concept of the nature of knowledge. The specific contributions of the Metaphysics to the theory of knowledge are discussed later on in this section, but there is good ground for including a discussion of the metaphysical doctrines of Aristotle in any study of his theory of knowledge. Knowledge and thinking had not assumed a

⁶¹ W. Windelband. A History of Philosophy, p. 140 and pp. 139 ff.

⁶² Cf. Theodor Gomperz. Greek Thinkers, Volume IV, pp. 88 ff.; Johann Eduard Erdman. History of Philosophy, Volume I, p. 153; Arthur Kenyon Rogers. A Student's History of Philosophy, p. 109; and Harold Cherniss. Aristotle's Criticism of Plato and the Academy, Volume I, in toto.

separate position in Greek thought; only as the object of knowledge is carefully delineated can the content of knowledge be ascertained. This is probably a characteristic⁶³ of any rationalistic realistic theory of knowledge. So true is this, that the highest form of reality and the highest form of knowing in Aristotle's thought are identified.⁶⁴ Pure Thought and Pure Reality are the same thing.

⁶³ Windelband. op. cit., p. 133.

⁶⁴ Cf. W. T. Stace. A Critical History of Philosophy, p. 288. For a discussion of Aristotle's Metaphysics, cf. Frank Thilly. History of Philosophy, pp. 82 ff.; Albert Schweigler. Handbook of the History of Philosophy, pp. 101 ff.; William Turner. History of Philosophy, pp. 134 ff.; Ueberweg. op. cit., pp. 157 ff.; John M. Warbeke. The Searching Mind of Greece, pp. 293 ff.; etc.

CHAPTER X

ARISTOTLE'S PSYCHOLOGY

This chapter is set aside for a discussion of the nature of knowledge in Aristotle's thought as it appears in On the Soul, On Memory and Reminiscence, and On Dreams. Special attention is given to On the Soul where Aristotle's psychological studies center.

Aristotle spent some time in the treatise On the Soul explaining what the soul is not. Brief mention of these points lead up to his own theory of the soul. Firstly, the soul is not movement nor involved in movement. It has already been pointed out, he said, that that which originates movement need not be moved. If the soul partakes in movement, it must have a place and it must be mover which is moved. Secondly, the soul is not harmony, for to be so it must be a composite thing. Moreover the power of originating movement--one of the recognized powers of soul--cannot belong to harmony. Thirdly, the soul can be moved only incidentally--that is, as the vehicle in which it dwells moves, but there is no non-local movement. Being pained or being pleased, perceiving, thinking, etc. are thought to be modes of movement and the soul experiences these; however, the movement meant is not in the soul, but starts in, or terminates in, the soul. Fourthly, the soul cannot be a self-moving number for what

sort of movement can be asserted of a unit--that is, to that which has no parts or differences internally, for if the unit both originates movement and is capable of being moved essentially it must contain difference. Fifthly, the soul cannot be composed of elements. The persons who hold the doctrines that the soul is composed of elements assume that like is known by like and thus must identify the soul with the things it apprehends. But even if the soul knows or perceives the elements within composites, by what means would it know or perceive the composite whole? Therefore, no adequate knowledge is gained by placing elements within the soul. Sixthly, the soul is not present in all things.

He argued this way:

The opinion that the elements have in them seem to have arisen from the doctrine that a whole must be homogeneous with its parts. If it is true that animals become animate by drawing into themselves a portion of what surrounds them, the partisans of this view are bound to say that the soul of the Whole too is homogeneous with all its parts. If the air sucked in is homogeneous, but soul heterogeneous, clearly while some part of soul will exist in the inbreathed air, some other part will not. The soul must either be homogeneous, or such that there are some parts of the whole in which it is not to be found.¹

Seventhly, the soul is not divisible. It is not correct to say that one part thinks, another desires, etc., for if its nature be divided what is that which holds it together? It cannot be the body for when the soul leaves the body the

¹ Aristotle. On the Soul. 411a16-22. (McKeon. op. cit., p. 553).

body disintegrates.

Following this negative discussion, Aristotle defined the soul and discussed its faculties. To define the soul, Aristotle returned to his theory of matter as potentiality and form as actuality with the fusion of the two being concrete reality. Natural bodies are substances; some have life but some do not. The soul is the form of a natural body having life potentially in it. Soul is the source of, and is characterized by, the powers of self-nutrition, sensation, thinking and moving. Thus it is clear, as Aristotle pointed out, that the earlier thinkers tried to define soul separately, but for Aristotle this cannot be; matter and form are interrelated. Grote says:

The real animated subject may be looked at either from the point of view of the relatum or from that of the correlate; but, though the two are thus logically separable, in fact and reality they are inseparable implicated; and, if either of them be withdrawn, the animated subject disappears. . . .

The real animated subject is thus a form immersed or implicated in matter; and all its actions and passions are so likewise. Each of these has its formal side, as concerns the soul, and its material side, as concerns the body. When a man or animal is angry, for example, this emotion is both a fact of the soul and a fact of the body: in the first of these two characters, it may be defined as an appetite for hurting some one who has hurt us; in the second of the two, it may be defined as an ebullition of the blood and heat round the heart.²

Not only so, the soul is the ousia of the body in which all

² George Grote. Aristotle, Volume II, pp. 188-189.

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bodily conditions receive meaning.

The faculties of the human soul are the nutritive, the appetitive, the sensory, the locomotive, and the power of thinking. Plants and animals have only some of these functions but not all of them. Grote points out that the psychological classification of functions proceeds in the inverse direction from the psychological classification in Plato's Timaeus. Plato began with the soul of the cosmos and moved from there down to men, animals, and plants. Aristotle, on the other hand, began with the largest, most numerous, and lowest group of individuals. In other words, the nutritive function is the indispensable basis of all things. It is common to all souls. Each successive stage builds upon, and includes in itself, those things which⁴ went before.

Nutrition, with its accompaniment, appetite, involves three factors: (1) what is fed; (2) that with which it is fed; and (3) that which does the feeding. The first is the body which has the soul in it; the second is the food; and the third is the first soul or the earliest type of soul.

Next, Aristotle discussed the characteristics of the sense function which is a function that presupposes the

³ Cf. Edwin Wallace. Outlines of the Philosophy of Aristotle., p. 35.

⁴ Grote. op. cit., pp. 192 ff.

nutritive function. The soul involved here is the animal soul, which also includes the locomotive function, whereas the soul which has only a nutritive function is a plant soul. Sensation depends upon a movement without; it is a change of quality. The male parent transmits the sentient soul and at birth the living subject has instantaneous actuality of cognition of the sentient type. It is not learned. However, reflection upon the cognitum comes later and has to do with universals within individuals not the apprehension of individuals themselves. The objects of sense are of two direct types: (1) that which is perceptible by a single sense, and (2) that which is perceptible by any and all of the senses.

After a discussion of the various senses and their operation, Aristotle formulated certain conclusions concerning the senses. Firstly, a "sense" has the power of receiving the sensible forms of things without their matter. Like a peice of wax takes on the form of a signet-ring without taking on of the iron or gold of the ring, so the senses apprehend the essential form of things that are sentient. Thus there is within the soul that which is potential and passive; this inner stuff becomes actualized by the impress of the form of the object in the process of sensation; "the percipiens is not like the percipibile originally, but becomes like it by

being thus actualized."⁵ An organ of sense is that in which such potential actuality resides. The senses are many and varied in the lower animals but in men there are only five: sight, hearing, smell, taste, and touch. Each of these has its particular type of object.

But not only does an individual see, hear, smell, taste, and touch, he also distinguishes between what he sees and what he hears, for instance. Not only does he perceive things but he perceives that they are different from other things. This latter function cannot be performed by any of the senses alone because both qualities which are discriminated must be apprehended by something which is one and single. This is also substantiated by the fact that this discrimination takes place at a single point of time; one sensation is not known and then another and finally the discrimination made. It is one and the same mental act. This activity, though unnamed by Aristotle, could probably be called "common sense."

From a discussion of the senses, Aristotle moved on by gradual steps to the doctrine of Nous, the highest function of the soul. Thinking is compared with perceiving in that in both cases the soul is cognizant of something that is, but they differ in that perceiving is universal in the animal world and is always free from error while thinking is

⁵ Ibid., p. 195.

limited to a certain segment of the animal world and can possibly be in error. Thought is found only when there is a discourse of reason and sensation: it is part imagination and part judgment. Imagination "is that in virtue of which an image arises for us."⁶ Imagination is not sense, for sense is either a faculty or an activity while imagination takes place without either, as in dreams. Also sense is always present but imagination is not; sensations are always true but phantasies are, for the most part, false. Phantasies often appear even when one's sensations are not working, as in dreams. Imagination is not opinion for opinion involves belief, persuasion and some explanation of the persuasion; no animal has these. However, imagination is a movement and has to be caused. The causative element is sensation. Grote summarizes Aristotle's theory of imagination in this way:

Phantasy is an internal movement of the animated being (body and soul in one); belonging to the sentient soul, not to the cogitant or intelligent; not identical with the movement of sense, but continued from or produced by that, and by that alone; accordingly, similar to the movement of sense and relating to the same matters. Since our sensible perceptions may be either true or false. [That is, sensation of the common sense variety, not sensation of the special senses which may not err.] so also may be our phantasms. And, since these phantasms are not only like our sensations, but remain standing in the soul long after the objects of sense have passed away, they are to a great degree the determining causes both of action and emotion. They are such habitually to animals, who are destitute of Nous; and often even to in-

⁶ Aristotle. op. cit., 428a1-2. (McKeon. op. cit., p. 587).

telligent men, if the Nous be overclouded by disease or drunkenness.⁷

There are two treatises which Aristotle wrote that are akin to the discussion at hand. Therefore brief mention is here made of On Memory and Reminiscence and On Dreams. The latter is clearly a discussion of this particular form of phantasm or imagination. Aristotle pointed out how a dream is not the same as sense-perception nor opinion. However, it does pertain to sense-perception as surely as sleep itself does. The principle underlying this phenomenon is clearly stated by Aristotle:

The objects of sense-perception corresponding to each sensory organ produce sense-perception in us, and the affection due to their operation is present in the organs of sense not only when the perceptions are actualized, but even when they have departed.⁸

Aristotle continued later on:

From this it is manifest that the stimulatory movements based upon sensory impressions, whether the latter are derived from external objects or from causes within the body, present themselves not only when persons are awake, but also then, when this affection which is called sleep has come upon them, with even greater impressiveness. For by day, while the senses and the intellect are working together, they (i.e. such movements) are extruded from consciousness or obscured, just as a smaller fire beside a larger fire, or as small beside great pains or pleasures, though, as soon as the latter have ceased, even those which are trifling emerge into notice. But by night [i.e. in sleep] owing to the inaction of the particular senses, and their powerlessness to realize

⁷ Grote. op. cit., p. 212.

⁸ Aristotle. On Dreams, 459b25 ff. (McKeon. op. cit., p. 620).

themselves, which arises from the reflux of the hot from the exterior parts to the interior, they [i.e. the above movements] are borne in to the head quarters of sense-perception, and there display themselves as the disturbance (of waking life) subsides.⁹

Memory is also important in this connection since it seems to be the only function of the soul which approaches so nearly that of imagination and dreams. In fact, Aristotle stated that memory and imagination are in some cases so alike that they cannot be distinguished clearly. Memory relates always to the past and therefore is neither perception nor conception. However, it relates to sense in much the same way as imagination and dreams in that it involves a "presentation," that is, a previous apprehension of sensible objects by sensation. Aristotle said:

The process of movement [sensory stimulation] involved in the act of perception stamps in, as it were, a sort of impression of the percept, just as persons do who make an impression with a seal. This explains why in those who are strongly moved owing to passion, or time of life, no mnemonic impression is formed; just as no impression would be formed if the movement of the seal were to impinge on running water; while there are others in whom, owing to the receiving surface frayed, as happens to [the stucco on] old [chamber] walls, or owing to the hardness of the receiving surface, the requisite impression is not implanted at all.¹⁰

The question now is, What does one remember, the impression or the object? If the former, then one does not remember

⁹ Ibid., 460b27-461a8. (McKeon. op. cit., p. 622).

¹⁰ Aristotle. On Memory and Reminiscence., 450a30-450b6. (McKeon. op. cit., p. 609).

anything that is absent; if the latter, one might suppose it possible also to see or hear that which is not present.

Aristotle explained that in this way:

In so far as it is regarded in itself, it is only an object of contemplation, or a presentation; but when considered as relative to something else, e.g., as its likeness, it is also a mnemonic token.¹¹

Recollection differs slightly from this in that it is the reinstatement into consciousness of something which was there before. This is a characteristic of man above the animals some of which have memory. Recollection or reminiscence is a reviving rather than a retentive function. It is dependent upon the capability for, and the use of, discursive reason or inference. As Grote says:

The process is intentional and deliberate, instigated by the desire to search for and recover some lost phantasm or cognition; its success depends upon the fact that there exists by nature a regular observable order of sequence among the movements of the system, physical as well as psychical.¹²

Thus the causative factor in the case of reminiscence seems to be thinking rather than sensation.

In turning attention to the mind or Nous in Aristotle's treatment, this study returns to On the Soul. In the case of Nous the earlier elements or nutrition, sensation, imagination, memory, and recollection are presupposed. By means of

¹¹ Ibid., 450b26-27. (McKeon. op. cit., p. 610).

¹² Grote. op. cit., p. 215.

the last three named the gap between sensation and cogitation is bridged. (Aristotle's doctrine of Nous is regarded by commentators as being difficult to understand. Most of these problems will have to be over-looked in this study for the interest is not in location or source but rather in function. Aristotle is quite clear in regards to the function of soul.)¹³ Sense-perception is a separate source of knowledge for Aristotle, but through its five functions and its psychical effects in the form of imagination and memory, there is stored up an experience of facts from which mind draws inferences to unknown facts and thus directs conduct and enlarges knowledge. This prior storing-up of experience goes on from infancy even before the noetic function begins to work. Thus though Nous is distinct from sense yet it is dependent upon sense, or more directly, upon imagination, which is in turn dependent upon past movements or sense. Imagination is indispensable to cogitation: first, to the carrying on of the process; and second, to the remembering¹⁴ of it when it is past. This is very important.

It thus appears clear that Aristotle restricts the Nous or noetic function in man to the matters of sense and experience, physical or mental, and that he considers the phantasm to be an essential accompaniment of the cogitative act. Yet this does not at all detract from

¹³ For a discussion of these other problems, cf. Grote. op. cit., pp. 219 ff.

¹⁴ Cf. Aristotle. On the Soul. 431a14 ff. (McKeon. op. cit., p. 594) and Grote. op. cit., pp. 225-227.

his view of the grandeur, importance, and wide range of survey, belonging to the noetic function. It is the portion of man's nature that correlates with abstract and universal; but it is only a portion of his nature, and must work in conjunction and harmony with the rest. The abstract cannot be really separated from the concrete, nor the universal from one or other of its particulars, nor the essence from that whereof it is the essence, nor the attribute from that of which it is the attribute, nor the genus and species from the individuals comprehended therein; nor, to speak in purely Aristotelian language, the Form from some Matter, or the Matter from some Form.¹⁵

Sense-perception alone, however, cannot apprehend the first principles of knowledge; reason or Nous can. The process, as was seen in his logic, is inductive, from the variety of sense-experience by the way of imagination or intuition to
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complete certainty of basic principles.

¹⁵ Grote. op. cit., p. 228.

¹⁶ Cf. Aristotle. op. cit., the entire treatise. (McKeon. op. cit., pp. 535 ff.); Grote. op. cit., pp. 170 ff.; Theodor Gomperz. Greek Thinkers, Volume II, Chapters XV-XVII, pp. 192 ff.; Wallace. op. cit., pp. 85 ff.; Eduard Zeller. Aristotle and the Early Peripatetics, Volume II, pp. 90-135. Cf. also G. R. G. Mure. Aristotle, pp. 102 ff. and pp. 166 ff.

CHAPTER XI

CONCLUDING CONSIDERATIONS ON ARISTOTLE

Any consideration of any phase of Aristotle's thought should be set against his metaphysical doctrine to understand it completely. Zeller says in this connection:

The peculiar traits of the Aristotelian philosophy are due to the fusion in it of the two elements to which attention was called at the outset, namely the dialectic or speculative, and the empirical or realistic. On the one hand the system finds the true essence of things to consist in immaterial form, true knowledge of them in the apprehension of their concept; on the other hand, it insists that the form should not be conceived of as a transcendental 'idea' existing apart from things, and that it is the individual, and not the universal notion or genus, that is the ultimate reality.¹

In Aristotle's theory of being, the substance--the first of the categories--is the only predicate which can stand alone and prior to all other predicates. It is basic in that it refers to the essence of things. It does not refer to universals or the ideas of Plato but it refers to things themselves, individuals. Thus Being is the essence of any particular thing for only the particular is free from accident and participation in other things. In other words, the universal or the idea is really a composite thing while true essence is simple.

This seems to be a complete repudiation of Plato but

¹ Eduard Zeller. Aristotle and the Earlier Peripatetics, Volume II, pp. 336.

it is not so complete as it might seem. Aristotle in emphasizing the particular above the universal had to account for the fact that things came to be and perish. If substance is purely a particular thing and particulars are generated and destroyed, the basic structure of the universe is not stable and unmoved. The result of this would be a nihilism which would probably be worse than the idealism of Plato in Aristotle's mind. Thus, Aristotle emphasized the presence of the forms but not apart from the world of things. The forms exist in the things rather than the things participating in the forms.²

To explain the presence of the forms in perishable things, Aristotle introduced the substratum which is primarily matter and the terms "potential" and "actual." The essence of the things exists in the form of the things which is actuality, but matter which is potential and form which is pure actuality are combined to make concrete reality, the things themselves. Each thing is amenable to change, that is, each thing is potentially something else, while at the same time the form is the true essence and actuality of the things. By this means, Aristotle accounted for change and

² Werner Jaeger suggests something which might account for Aristotle's insistence on this point. He says that Aristotle anchors metaphysics in physics because "it is nothing but the conceptually necessary completion of the experimentally revealed system of moving nature." Cf. Jaeger, Aristotle, p. 380 and cf. pp. 376-390.

yet made the ground of change to be that which is changeless, the forms. This was carried to the point of Pure Form or Pure Actuality which is the source of all movement or change.

It is against this ontological background that Aristotle's theory of knowledge is cast. But there are two other factors which figure into his theory of knowledge: his logic and his psychology.

Logic for Aristotle was the science of thought and it was two-fold, inductive and deductive. Given certain premisses Aristotle promised certain deduced or inferred conclusions by the use of his syllogistic method. This method of deduction is purely a mental process and yet Aristotle called it demonstrative science. He held this method to be rationally inviolable although validity of the conclusions was dependent upon the validity of the basic premiss. He made possible for other than assertoric, demonstrative syllogisms to have the same validity of method. Thus necessary (apodictic) and problematic syllogisms could also, by this valid syllogistic process of inference, result in necessary and problematic conclusions, respectively.

Thus it is seen that Aristotle placed the validity of syllogistic conclusions on the basis of the validity of his basic premisses. It is to the establishment of adequate basic premisses that his inductive method was introduced. He limited the use of the demonstrative syllogism to special sciences on the basis that the first principles of these

could be ascertained. This placed any casual thinking or intellectual training or even philosophic reasoning outside the realm of scientific inference. To these were assigned the use of dialectic method which was regarded as being a secondary and less certain, though not unimportant, process of thought. Dialectical method, which had been the main method of Plato, therefore lacks the absolute authority of scientific method though it does not suffer the limitations³ that scientific method does.

The process of establishing first principles for demonstrative science is the inductive method. It begins with sense-perception and moves through memory, imaginative experience to Nous, the highest form of thought, where there comes a synthesis of the elements as perceived by the senses into an intuitively ascertained whole. Their resultant is known with absolute certainty though it cannot be rationally⁴ proved. It is the undemonstrable basis of all demonstration.

Thus induction and deduction are really two sides of the same general method.

³ For a discussion of Aristotle's scientific method, cf. Richard McKeon. "Aristotle's Conception of the Development and the Nature of Scientific Method." Journal of the History of Ideas, January, 1947, pp. 3-44.

⁴ Cf. later for a more complete discussion of Nous as well as the epistemological implications of this theory.

This inductive process of logic is similar to the stages of souls in Aristotle's psychology. Sense-perception is the lowest faculty of the soul except for the nutritive function. Plants have only this latter function but animals also have the former. Imagination is another phase with memory and reminiscence. All of these phases form steps to the last, the Nous, which is possessed by man only. Nous seems to include both intuitive and rational functions for it is Nous which apprehends first principles with certainty, and it also seems to be Nous which carries on the inferential functions of the syllogism. Not only so, Nous is what is engaged in any abstract mental function, including the dialectical function.

It should be noted also that Nous presupposes all the other faculties of the human soul. The senses perceive; this is the passive function of the soul. But these elements pass into imagination in the form of memory, recollection, dreams or phantasies. Here they become part of the experience of the soul. Nous draws on this experience for its certainties and for its inferences. This is the active function of the soul.

It has been pointed out that Aristotle's logic and psychology as set against the background of his metaphysical doctrines are factors in his theory of knowledge. From his writing, it is evident that Aristotle was a realist. Things exist apart from the mind that knows them. The priority

of things to one's knowledge of them is clearly seen in the fact that the Metaphysics is the background for his theory of knowledge. He is a monist in that the mind is at one with the object. In sense-perception, there is an impression of the actual form of the object upon the potential of the soul. It should be noted, however, that Aristotle's realistic monism is modified from Plato's in that it is not conceptionistic nor is the logical order made the order of reality. The logical order is an analogy to the real order.⁵

Aristotle is also a rationalist but in a modified sense because of empirical elements. Demonstration, which stands next to the intuitive grasp of first principles in importance, and has similar certainty as the first principles do, is a rationalistic function. But there are other elements also. It is the data of experience, which originates with the senses and becomes a phantasm, that is the thing which is the source-ground for the thoughts of Nous. It is empirically based.

In short, Aristotle maintained that simple sense-experience was free from error as also was the intuitive grasp of first principles and the rationalistic use of

⁵ Cf. Joseph A. Leighton. The Field of Philosophy, p. 103 and Fernand Van Steenberghen. Epistemology, pp. 54-55.

deductive inference. Sense-experience, the passive function of mind, receives the impression of the essence (form) of real objects. These impressions become experience which the reason uses in its inferential functions. As Turner points out, there is a development from sense-knowledge to rational knowledge. The latter is superior to the former but the former is necessary to the latter. The senses apprehend the actual concrete realities in which the forms that are their essence lie; the mind apprehends the forms, the true substance of the things.⁶

With these things in mind, it is as close as one can come in defining and cataloging Aristotle's theory of knowledge to call him a modified rational realistic monist.

In conclusion, the place of extra-rational or faith elements, is lifted up for brief consideration. Aristotle shared the three-fold faith assumption of the Greek constructive thinkers: (1) the universe exists; (2) it can be known; and (3) it can be known by man alone without the help of the gods. Usually this knowing of the universe is

⁶ William Turner. History of Philosophy. John Dewey calls this knowledge which originates with passive mind, "spectator knowledge" in his Quest for Certainty, p. 215 (Cited by John MacPartland. "Aristotle and the Spectator Theory of Knowledge." Journal of Philosophy, May 24, 1945, p. 291). MacPartland insists that that is not true for the mind and the object are one in the knowledge act for Aristotle. This is evidently the Thomistic and Neo-Thomistic view of Aristotle. It is, however, possible that Aristotle had a place for spectator knowledge in sense-perception while he certainly made mind active in its higher functions. Cf. MacPartland. op. cit., pp. 291-293. Also cf. Zeller. op. cit., Volume II, pp. 336-338.

rationalistic and Aristotle was no exception except for the empirical basis for the rationalistic inferences which he maintained. There is also a sense in which the rational certainty of the syllogistic process was a faith-venture, as was the postulating of the Prime Mover. Opinion is a belief in that its certainty is not knowledge and thus is not complete certainty. But the locus classicus of the extra-rational leap is at the very heart of Aristotle's science, namely in the establishing of first principles. Induction gives way to an intuitive leap which Aristotle maintained was the supreme point of certainty.⁷

⁷ For a discussion of the Peripatetics, cf. Appendix B.

PART FIVE

GENERAL CONCLUSIONS

CHAPTER XII

GENERAL CONCLUSIONS

Before finishing this study, it is necessary to draw together in one chapter the various conclusions found throughout this study. A section is given over to the conclusions on the nature of knowledge, and another section is given over to the conclusions on the role of faith.

I. THE NATURE OF KNOWLEDGE IN GREEK THOUGHT

In reviewing the period from Thales to Aristotle, an increasing awareness of the problem of knowledge can be seen. The Ionians, it was said, were not so much noted for their theories so much as they were in the instigating a new thinking trend which was to come to fruition in the later Greek thinkers. They played an important part in the breaking from superstition which the Greek world underwent in the sixth century before Christ. This break was what was important or is at least important to the history of western thought, not their theories of being. This break was largely an epistemological thing, for it was a substituting, on faith grounds, of a rational realism, uncritical though it was, for the naive empirical realism of an earlier period.

The Pythagoreans substituted a dualistic metaphysics for the monistic metaphysics of their predecessors and

conceived of it in terms of number. This is a provocative metaphysical problem, but what is more important for this study is the fact that the real world was shifted to a different level from the world of the Ionians. The outer world as perceived by the senses and interpreted by reason, which was, for the Ionians, the real world, gave way to a realism of relationships between the limited and the unlimited. Thus a rational realism was maintained but of a more mathematical nature.

With Heraclitus, metaphysical monism was re-established. There is one basic principle in the universe, namely the principle of change. But, important enough, it is not an unassertainable change, as in Bergson, for instance. It is a principle of change which is a rational principle; it is dependable and the only dependable thing; and it is permanent. It would be supposed that such a philosophy would shift the real world back to the world of sense, but that was not the case with Heraclitus. The senses, he said, indicated that there was such a thing as changeless permanence, only the reason can show that that is not true. But he did not rule out the senses or sense-data; he felt that they alone could not give a correct picture of reality. Thus there was a clear rational emphasis, for only the mind or the reason has true knowledge. Heraclitus can be called a modified rational

realist--modified in the sense that there is more than reason involved.

The grappling with the problem of whether the world is a world of being or a world of becoming continued throughout the entirety of Greek thought. One of the most influential of the early attempted solutions was the one proposed by the Eleatics. They asserted that pure being is the basic principle of the world. Becoming is illusion. As a result there was a complete distrust of the senses. The senses report change, but change does not exist; therefore, pure reason is the only means of apprehending pure being. This is clearly a metaphysical monism as well as being a pure rational realism or a metaphysical rational realism.

The Pluralists, including the Atomists, found basic principles instead of a basic principle in the universe. They also gave more time to the problem of knowledge. Empedocles' theory of knowledge is linked with his theory of the elements. Man is of the same elements as the rest of the universe and thus can know the rest of the universe since like knows like. This was perhaps a crude mechanical emphasis on perceptual apprehension, but it clearly indicates a realism; and it is also an indication of a beginning of an interest which Greek thought was to exploit more fully later, namely a concern for the subjective factor. Empedocles is called a modified rational realist--modified in that knowledge

does not come by reason alone, though reason interprets sense-data.

Leucippus and Democritus, the Atomists, made the particulars themselves ultimately real. This feature clearly effected the atomistic theory of knowledge. The soul is composed of atoms and, therefore, sensation must be the impact of the atoms from without upon the atoms within. However, the phenomena produced by this impact may not be exactly like the object as it exists in itself. The air through which the atoms pass can distort the image. Thus, one cannot know anything completely and surely by the senses. Here again is an emphasis upon the subjective factor, and mechanical though it be, the problem of error was given a new turn. Error was not considered as the opposite of right and the equal of wrong, but it was considered to be the contortion of right. However, sense-experience is hopelessly obscure because of the ever present margin of possible error. There is a true knowledge--here the atomists reveal their faith in rationalism--which is distinct and genuine. Thus the atomists are denominated modified rational realists.

Anaxagoras, a pluralist, marked a transition from cosmological thought and the thought of the later period which was anthropological or at least was largely so. In epistemological terms, this transition was from a concern with the outer world to a concern with the subjective world.

This transition came with Anaxagoras' emphasis on mind as a significant factor in the order of nature. He maintained a mechanical theory of sense-perception as his colleagues did but clearly emphasized the subjective factor, Mind, and gave it a strong ontological status. Thus, he too was a modified rational realist.

The subjective factor that came into prominence with the pluralists became almost an obsession with many of the Sophists. Man as the measure of all things became the keynote of this movement. It has been discussed in Chapter IV as to whether Protagoras meant the term "man" to be in an individual or in a generic sense. The conclusion on this point is that Protagoras' real meaning is uncertain; however, the fact that "man" came to be used in an individual sense in the Sophist movement is clearly indicated. This extreme subjectivism led to a relativism of knowledge and finally to a scepticism. There is, however, probably no epistemological idealism here. The outer world is real and can to a certain extent be apprehended by the senses, but because one man is different from another his sense-grasp may differ from the other man's. This clearly headed toward scepticism, and with Gorgias, fully arrived.

It took a strong man to pull the cause of philosophic thought out of the fire. The tremendous role of Socrates in doing just that is almost impossible to evaluate. He did

it without underestimating the subjective element. Granting that truth is a subjective matter, Socrates maintained that the subject is a rational being and that as a rational being he can grasp truth. Since reason is a common element of men (a universal element), there must be a universal truth which is shared by all rational beings and is valid for all. Basically, therefore, truth exists in the mind of a person and when called forth is like the truth called forth from the mind of any person. Socrates' dialectical or dialogue method was an attempt to draw out such truth after a catharsis of prejudices and lesser ideas had taken place. This was a clear re-assertion of rationalism, since it was largely dependent on the rational processes rather than on sense-data, and a partial re-assertion of realism, at least--a complete solving of the Socratic-Platonic problem would help to decide how much of a re-assertion-- , since truth is common to all. It should be said, however, that Socrates' limited, or seemed to limit, the realm of truth to moral truth. In the light of this discussion, Socrates is called a limited rational realist.¹

It is impossible to give a complete and adequate review of Plato, partially because of his method, partially because of his exhaustiveness, and partially because of his vagueness.

¹ The Semi-Socratics should have brief mention. The Megarians used the eristic method almost to the point of scepticism. The Cynics emphasized the subjective factor in much the same way as did the Sophists and nearly to the point of scepticism. The Cyrenaics emphasized an idealism which was uncommon among the Greeks and thus despaired of true knowledge.

It seems, however, that Plato found the unity of the real world in the realm of ideas. These ideas are constant but not aloof from the world of change. The relation of being to becoming, the one to the many, was Plato's biggest problem. At least, his emphasis on the realm of ideas as true reality led to an emphasis on true knowledge as conceptual knowledge. His early dualism seems to have cut off to a great extent conceptual knowledge from perception. But in an over-all view of his thought, this is not the case. Perception exists and can be true but it is merely a matter of opinion for the possibility of error exists in the apprehension of a changing world. Only in the apprehension of changelessness can true knowledge exist. This grasp is conceptual and almost intuitional. Since the real world exists outside the mind--this seems to be the correct interpretation of Plato's thought, and since its most certain apprehension is by reason, it is clear that Plato was a rational realist.

Aristotle found the basic principle of the universe, not in an archetypal form, but in the world of particulars. But though the form is never separated from the particular except in the mind, it is the truly existing and changeless essence of a thing. That being the case, knowledge begins with perception, the grasp of the thing, but reason grasps the eternal form of the thing. This prior action of percep-

tion as being basic to rational grasp is seen in his psychology where each function of soul from the appetitive and the perceptual up to Nous is dependent upon the action of every previous function. Also in scientific knowledge, a process of induction from sense-experience up to the intuitive grasp by Nous of the universal and changeless premisses or principles is necessary before any rational deductive process takes place. This distinctive use of sense-data along with the rational grasp of truth of the outer world would label Aristotle a modified rational realist. At least this seems to be the best label that can be found for his thought.

Therefore, in conclusion, the Greek thinkers were almost entirely rational realists, except for those who were subjective to the point of scepticism and the Cyrenaics who alone introduced an idealism which resulted in practical scepticism. Some were almost pure rational realists, such as the Eleatics, and to some extent, Plato and the Pythagoreans. One seems to have limited rational realism to the realm of moral truth because his interests were there, namely Socrates. Some, such as Heraclitus, the Pluralists, and Aristotle, are better known as modified rational realists because there is an evident dependence upon sense-data in their theories of knowledge. The Ionians can be called uncritical rational realists since there was indicated no

great break between the report of the senses and the report of reason. They did little more than distinguish between the two. In all of these thinkers, the world is regarded realistically in that in all of them the world exists outside of mind. Most of them are also epistemological monists in that the mind is capable of giving a correct picture of the real world. (The exceptions to the monistic view are possibly the sceptics and the Cyrenaics.)

II. THE ROLE OF FAITH IN GREEK THOUGHT

One of the interesting things about the present study is the fact that it has been done before. The attempt was not as extensive or as heavily documented as this study has been, but it was done in a day when the early Christian Church was faced with Greek thought as a possible friend or a possible foe. Perhaps the easiest thing for the church to do was to attack every idea and thought-pattern of the ancient world, because of their seeming anti-revelation, and therefore anti-Christian, character. It would have been most easy to have been uncompromising when the Church and the pagan world were in conflict, especially in the realm of ideologies. But interestingly enough the approach made by a substantial thinking segment of the church was not villification but careful and penetrating analysis of the best of pagan thought, and dangerous though it was, it seems to have born fruit.

An intolerant gospel of full revelation was paradoxically established in several quarters by a broad and tolerant method--a special Christian revelation planted solidly on a natural revelation or even a special revelation of a different type which came to its fruition in Greek thought.

It was part of this last endeavor that Clement of Alexandria undertook when he wrote The Stromata. In Chapter IV he discussed faith as the basis of all knowledge. This is a most revealing chapter since it is an apologetic for the Christian faith on the basis of faith which exists in the concepts of knowledge in the Greek thinkers.²

To a brief review of this role of faith, this study turns in conclusion. It is maintained that all of the Greek systematizers worked on a three-fold faith premiss. This three-fold faith is maintained throughout Greek thought except where sceptical elements appear. In fact, this faith-venture is one of the most distinguishing features of Greek thought. It is made up of the following elements which are implicit but evident throughout: (1) that there is a basic unity to the universe, whether that unity be conceived as one principle or many; (2) that that unity is maintained by fixed laws and therefore is constant; and (3) that that unity, which is reality, is knowable by the native powers of

² Clement of Alexandria. The Stromata or the Miscellanies in the Ante-Nicean Fathers, Volume II (Alexander Roberts and James Donaldson, editors), pp. 349-351.

man without the help of the gods.

The early Greek thinkers are noted in this area for establishing these implicit faith-principles. The break this implied from the early Greek superstitions is difficult to appreciate fully. The role of faith other than this basic venture is not too evident in the pre-Socratic thought; but with the coming of Socrates and the re-establishing of the principle of rationalistic validity, faith played a prominent role not only as a basis or foundation for knowledge but as extra-rational elements within the systems themselves. Socrates revealed such extra-rational elements as the place of Providence and the rational limitations set by the daimonion. Also implied in his moral thought is the capacity of valuation. Valuation implies the possibility of choice which is possibly an extra-rational function of will.

Plato revealed a faith-venture primarily in the Parmenides where he insisted upon the establishment of the doctrine of ideas in spite of rational limitations. His indecisive method and his use of the myth indicates a movement into an area where absolute certainty does not exist. His establishing of a cosmic teleology--that is, the placing of the Good as the highest idea, was also a faith-venture.

Aristotle revealed an extra-rational leap at a crucial point in his scientific thought, namely the intuitive grasp of first principles. Also, the fact that he

limited the scientific method so decidedly and yet made room for possible knowledge outside of the method was in some ways a faith-venture. Also, in starting his theory of knowledge with sensation he assumed something which he did not analyze, namely sense-experience itself and how it can be. This also was a faith-venture. Induction begins and ends in mystery for Aristotle, and yet it was at the heart of knowledge which he regarded as the most dependable.

In short, the Greek movement from Thales to Aristotle was not so much a break from faith and the establishing of knowledge as it was a break from superstition and the establishing of a constructive faith broad enough to maintain the varieties of Greek thought.

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APPENDICES

APPENDIX A

THE OLD ACADEMY

Brief mention should be made of the disciples of Plato, other than Aristotle, in the scientific school which he founded, the Academy. Most historians find five different schools of disciples and list them as follows: Old Academy, first school; Middle Academy, second and third schools; and New Academy, fourth and fifth schools.

The leadership of the Old Academy was given by Plato to Speusippus. Other members of this Academy were Xenocrates of Chalcedon, who succeeded Speusippus, Heraclides of Pontus, Philip the Opuntian, Hermodorus, and Polemo, Crantor, and Crates. Speusippus seems to have given up the Platonic ideas and replaced them with mathematical numbers. He maintained a doctrine of a pantheistic character and in general was much like the Pythagoreans. He seems also to have held a broader theory of knowledge than Plato did for he gave more place to knowledge by experience, according to Zeller.¹ Xenocrates divided philosophy into three divisions: dialectics, physics, and ethics; and he divided essences into the sensible, the intelligible, and the intermediate--the objects of opinion. He too was held by the magic of number, although he did not go as far in his approach to Pythagoreanism as did Speusippus.

¹ Eduard Zeller. Greek Philosophy, p. 166.

Polemo, the successor to Xenocrates, turned his attention mainly to ethics as more important than dialectics.

These are three of the more important men of the Old Academy. They point out clearly that the school extended portions of Plato's thought without the acumen and completeness of their teacher, much like the Cynics and Cyrenaics extended the thought of Socrates. A certain amount of corruption was to be expected and it is clearly found even in the first successor to Plato, so that the general movement was largely Pythagorean. But the Middle Academy epitomized that corruption with the introduction of scepticism. The New Academy marked a return to a more dogmatic position without the inspiring genius of Plato and thus formed a transition² to Neo-Platonism.

William Turner, in summarizing the historical position of the Academics, says:

The Academics, although they were the official representatives of Platonic philosophy, failed to grasp the true meaning of the theory of Ideas. By introducing Pythagorean and other elements they turned the tradition of the Platonic school out of the line of its natural development, and ended in adopting a scepticism or a dogmatic eclecticism either of which is far from what should have been the logical outcome of Plato's teaching.

² The Middle and New Academies do not come within the bounds of this study since they form a liason away from purely Greek philosophy up to the time of Aristotle. For a review of the Old Academy, cf. Theodor Gomperz. Greek Thinkers, Volume V, pp. 1-17; Zeller. op. cit., pp. 165-169; etc.; and for a review of all three Academies, cf. Friedrich Ueberweg. A History of Philosophy, Volume I, pp. 133 ff.

They are to Plato what the imperfectly Socratic schools are to Socrates. The continuity, therefore, of Platonic thought is not to be looked for in these schools but rather in the school founded by Aristotle.³

³ William Turner. History of Philosophy, p. 124. Cf. 121-124.

APPENDIX B

THE PERIPATETICS

Ueberweg divides the Peripatetics into an earlier group and a later group. Theophrastus of Lesbos undertook to guide the Peripatetic school after Aristotle's death. He seems to have been in charge of the school for about thirty-five years. With Theophrastus, there was an attempt to supplement and extend the thought of Aristotle especially in the field of physics and ethics. He wrote many works covering the whole field of philosophy, but he is especially noted for his two works on botany and his Ethical Characters. Not only was there an extension of Aristotle's thought with Theophrastus, but there were some modifications especially of Aristotle's doctrine of movement.

As to the nature of knowledge, he deviated from Aristotle in regarding human thought as movement of the soul, and he removed some of the difficulties in the way of active and passive reason without removing the distinction between the two.¹

Beside Theophrastus stood Eudemus of Rhodes. He

¹ Cf. Friedrich Ueberweg. A History of Philosophy, Volume I, pp. 180-181; William Turner. History of Philosophy, pp. 158-160; Eduard Zeller. Greek Philosophy, pp. 222 ff. and Johann Erdmann. A History of Philosophy, Volume I, pp. 177-178.

showed little originality and stayed close to his master's teachings. His contribution is largely in the field of ethics and his work, the Eudemian Ethics is included among Aristotle's works as a suppliment to the Nicomachean Ethics.²

Aristoxenus of Tarentum, the Musician, introduced some Pythagorean elements into the Aristotelian school with his emphasis on the harmony of the soul.³

Strato of Lampsacus, the Physicist, was the important successor to Theophrastus. He served for eighteen years as the head of the Peripatetic school. In his study of nature, he manifested a tendency to discard the idea of the incorporeal. He placed the diety on the same level as the unconscious activity of nature. In short, he was opposed to the dualism which arose in Aristotle's natural philosophy.⁴

There were several other men of this school whose names and contributions are less important. However, there were a few men in the later Peripatetic school who were important. The most outstanding man of this group was Andronicus of Rhodes, who edited the works of Aristotle.

² Loc. cit.

³ Loc. cit.

⁴ Loc. cit.

With this group there seems to have been a return to orthodox Aristotelian thought but with no important original contributions, except for the exegesis of Aristotle's works.⁵

In short, no distinctive contributions to the theory of knowledge appeared among the Peripatetics with the possible exception of Theophrastus. His ideas are slight variations epistemologically though they are probably more significant psychologically and ontologically.

⁵ Cf. Turner. op. cit., p. 159; Ueberweg. op. cit., pp. 180, 181.