

A Brief Overview of Aristotle's
Background, Accomplishments, and the
Syllogism With Its Relation to Faith

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Thomas Newmister
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Saint Meinrad College
St. Meinrad, Indiana

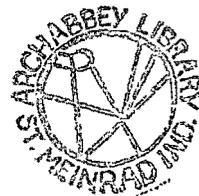


TABLE OF CONTENTS

Introduction 1
Chapter I 2
Chapter II 5
Chapter III 9
Chapter IV 12
Appendix 15
Footnotes 19
Bibliography 21

INTRODUCTION

The scope of this paper is rather general. Everything that is touched upon herein is done so in the manner of an overview. What this contains is Aristotle's background, some of his accomplishments, his development of the syllogism and the relationship of reason as developed by Aristotle to the idea of faith and Christianity. This paper in itself accomplishes nothing in regards to proving a point by means of argumentation as other papers might do. Hopefully, though, it will give an idea of the immensity of a few of the concepts that have been explored in Philosophy. It will hopefully show the tremendous accomplishments of one man and the complicated implications of faith and reason.

CHAPTER I

Aristotle was born in Stagira, a Macedonian city approximately two hundred miles north of Athens. His father was a friend of and physician to Amyntas, King of Macedon and grandfather of Alexander. Aristotle himself may have been a member of the great medieval fraternity of Asclepiads. He was brought up under the influence of medicine as a number of the later philosophers were brought up under the influence of sanctity. He had every opportunity and was highly encouraged to develop a mind bent toward the scientific. He was prepared from the very beginning to become the founder of science.¹

Concerning Aristotle's youth, there are at least two different versions. One account follows the line that his father was a physician at the court of the Macedonian king. As a boy he lived in an atmosphere of biological science and may have even been trained with aspirations of following in his father's footsteps. At seventeen, his father being dead, he went to Athens to enter the Academy of Plato and learn from the master. He remained at the Academy twenty years, writing, studying and eventually teaching up until the time of Plato's death.² The other account of his youth represents him as squandering his inheritance in riotous living, enlisting in the army to avoid starvation, returning to Stagira to practice medicine and finally going to Athens at the age of thirty to study at the Academy under Plato.³

He studied under Plato either eight or twenty years; from

the indications given in his works it seems that he must have been there for the longer period of time.⁴ The years spent under Plato were not as happily spent or as serene as one might suspect. Both Aristotle and Plato were relative geniuses; and it is fairly common that geniuses are as compatible with one another as dynamite is with fire. There was an age difference of almost fifty years and it was difficult to bridge this gap. Plato did recognize the great intelligence of his pupil and referred to him as the mind of the school. Aristotle spent a considerable amount of money on the collection of manuscripts. He was the first after Euripides, it is believed, to have put together a library. The foundation of the principles of library classification was among his many contributions to scholarship.⁵ There seems to have been a quarrel between student and teacher toward the end of Plato's life. Aristotle in his ambition seems to have developed an "Oedipus complex" against Plato for the favors and affection of philosophy, and began to hint that wisdom would not die with Plato. Plato spoke of his pupil as a "foal that kicks his mother after draining her dry."⁶ If this last statement is true in any way and if there is any truth to his early life, as being a bit wild and free-wheeling, then we have no trouble in seeing a strain of rebelliousness in Aristotle.

It does seem to be a consensus that the next few years of Aristotle's life were spent in tutoring Alexander who was at this time in his mid-teens. The fact that Phillip the King of Macedon called upon Aristotle to educate his son seems to uphold

the reputability of Aristotle. For the mere fact that the greatest monarch of the time, looking for a tutor for the future master of the world would single out Aristotle, does seem to place some sort of mark of excellence on Aristotle. The immediate relationship of Aristotle and Alexander as teacher and student, though short lived, was one of father to son. Alexander left philosophy after two years as his father was assassinated, for it was now up to him to take over. Alexander left Greece to conquer Asia. He left behind governments that were favorable to him but populations that were hostile. The "Macedonian party" which was the party of the king was unfavorable to the population of Athens. Aristotle openly associated with the Macedonian group as one might expect he would since he had been close to Phillip and to Alexander. As long as Alexander lived Aristotle received financial support and assistance in the gathering of specimens and information for his library and museums. When Alexander died, though, the anti-Macedonian feelings in the city of Athens finally rose up in revolt. "The technical charge of impiety was lodged against Aristotle, as eighty years before, it had been against Socrates."⁷ Before Aristotle could be brought to trial he left the city refusing to let Athens "sin twice against philosophy."⁸ He went North to the city of Chalsis where he died a year later (322 B.C.). His school, the Lyceum, was kept open by his students and their successors for over eight hundred years until it, like Plato's Academy, was closed by order of a Christian emperor in Constantinople.

CHAPTER II

In the fifty-third year of his age (332 B.C.) Aristotle established his school, the Lyceum, in Athens. He, of course, had no trouble in finding students as it was well known that he had been the private tutor of Alexander. He had so many students in fact, that it became necessary to develop a complicated system of regulations in order to maintain order. He let the students themselves determine the rules, and elected every ten days, one of their number to supervise the school.⁹ The school, though was not a place of rigid discipline. The interpretation that seems predominant is one that has the master of the school eating meals in common with the students, and teaching and conversing with the students as they strolled together up and down the Walk around the athletic field from which the Lyceum took its name.¹⁰ (The Walk was called the Peripatos; that is how Aristotle's school received the name Peripatetic school.)¹¹

Plato's Academy had been devoted above all to mathematics and to speculative and political philosophy. The Lyceum tended more to the study of biology and the natural sciences. It has, in fact, been written that Aristotle left the Academy because of his dislike for the growing emphasis on mathematics at the Academy and the corresponding decline in philosophical investigation.¹²

Yet it may be contended that the mathematical knowledge of Plato went little deeper than that of Aristotle; and on the other hand it is easy to exaggerate the importance of the biological element in Aristotle's system of thought.¹³

"If we may believe Pliny, Alexander instructed his hunters, game-keepers, gardeners, and fishermen to furnish Aristotle with all the zoological and botanical material he might desire..."¹⁴

Besides being well-supplied with specimens and materials, Aristotle is said to have been granted the equivalent of \$4,000,000 with which to work. With this large grant of money and the immense cooperation of Alexander and his staff, Aristotle's school became a definite organization,

somewhat like a college, which formed a social cult devoted to the Muses; and like a college it had its regular dinners even its plate. It was furnished with maps and a library, it had something of a staff...

Referring back to the statement above concerning the ease with which the biological and natural sciences especially their importance at the time, could be exaggerated, let's indeed keep in mind the amount of money and time as well as the will power and physical labor involved and get to a very important fact.

The fact being an almost fatal limitation on equipment.

Aristotle was forced

to fix time without a watch, to compare degrees of heat without a thermometer, to observe the heavens without a telescope, and the weather without a barometer...Of all our mathematical, optical and physical instruments he possessed only the rule and compass, together with the most imperfect substitutes of some few others. Chemical analysis, correct measurements and weights, and a thorough application of mathematics to physics were unknown. The attractive force of matter, the law of gravitation, electrical phenomena, the conditions of chemical combination, pressure of air and its effects, the nature of light, heat, combustion, etc., in short all the facts on which the physical theories of modern science are based were wholly, or almost wholly unknown.¹⁶

His lack of mechanics, is perhaps one of the reasons why

Aristotle so seldom appeals to experiment. The best he could do was achieve a practically universal and continuous observation.¹⁷

It is important though, that he did follow-through with his scientific endeavor for it has become the groundwork, to a large extent, for the progress of modern science.

Everything considered, Aristotle is held to have written anywhere from four hundred to a thousand volumes, including a digest of one-hundred-and-fifty-eight political constitutions. What remains of this vast amount of work is small as much of it was lost due to wars and the like, but what does remain is a library in itself.

There are first the Logical works: "Categories," "Topics," "Prior" and "Posterior Analytics," "Propositions" and "Sophisticated Refutation"; these works were collected and edited by the later Peripatetics under the general title of Aristotle's "Organon"--that is, the organ or instrument of correct thinking. Secondly, there are the Scientific works: "Physics," "On the Heavens," "On the Soul," "The Parts of Animals," "The Movement of Animals," and "The Generation of Animals." There are, thirdly, the Esthetic works: "Rhetoric" and "Poetics." And fourthly come the more strictly Philosophical works: "Ethics," "Politics" and "Metaphysics."¹⁸

One could easily get the impression that Aristotle single-handedly wrote the Encyclopedia Britannica of Greece, quite an undertaking for one man during a relatively short lifetime.

"It's no wonder that there are more errors and absurdities in Aristotle than in any other philosopher who ever wrote."¹⁹ He was trying to accomplish too much in too little time with inadequate equipment.

There was one thing that Aristotle accomplished which is far from absurd. It, in fact, has been the basis for many areas of

accomplishment through the years since Aristotle. That thing was his development of the syllogism.

CHAPTER III

The professor lecturing to an assembly, the orator who persuades, and the dialectician who discusses, all use equally strict reasoning, no matter how diverse their starting points might be. This reasoning is the syllogism. It is that process which causes thought to see the connection between the predicate and the subject whereas the connection might not have been reciprocal otherwise.²⁰

Most of us having been brought up in these times of higher education and the age of science and discovery probably have a good idea of what the syllogism is. Most of us either know or have heard somewhere that the syllogism is basically a three-termed statement consisting of a major, a middle, and a minor term. This idea is very basic to the whole concept of syllogism. The syllogism, just by the fact that it is associated with the term formal (formal logic) it should be evident that over all it is something complex. It could, in fact, be used analogously as a set of governing rules or battle plan applicable to oratorical warfare. It is a highly developed defense mechanism on which books have been written numbering in the hundreds. It would defeat the purpose at this point to go fully into the syllogism. I feel it sufficient to show the contents of Aristotle's Prior and Posterior Analytics, and the scope should be understood. The whole structure of rules to formal reasoning in the use of the syllogism, as it should be obvious from the contents, is not something mastered in a short time. Being one who has by no

means mastered the idea entirely let alone the rules, I do not feel it would be proper to make an attempt on my own at an explanation for it would only lead to deception.

The contents: Prior Analytics, are taken from page 37 of Great Books of the Western World, Aristotle, Vol. I. The contents: Posterior Analytics, are taken from page 95 of the same text. (See Appendix.)

In Chapter 14, book I of the Posterior Analytics there is a summary of sorts of how the three terms of the syllogism should be handled as regards a hierarchy of importance.

Of all the figures the scientific is the first. Thus, it is the vehicle of demonstration of all the mathematical sciences, such as arithmetic, geometry, and the optics, and practically of all sciences that investigate causes; for the syllogism of the reasoned fact is either exclusively or generally speaking and in most cases in this figure--a second proof that his figure is the most scientific; for grasp of a reasoned conclusion is the primary condition of knowledge. Thirdly, the first is the only which figure enables us to pursue knowledge of the essence of a thing. In the second figure no affirmative conclusion is possible, and knowledge of a thing's essence must be affirmative; while in the third figure the conclusion can be affirmative, but cannot be universal, and essence must have a universal character: e.g. man is not two-footed animal in any qualified sense, but universally. Finally, the first figure has no need of the others, while it is by means of the first that the other two figures are developed, and have their intervals close packed until immediate premises are reached. Clearly, therefore, the first figure is the primary condition of knowledge.²¹

The clarity with which all of this is grasped has been disputed by some but it has been proven to be valid.

I would like to go back for moment to a line from the above section; "for grasp of a reasoned conclusion is the primary condition of knowledge",²² for I think that it is reasonable and

necessary to see the importance of such a statement even though fragmented when we look at a brief statement concerning Aristotle's philosophy or meaning of "Reason." Aristotle felt that a life of pure reason, the life of the philosopher or scientist was the highest state of life.²³ In his own words:

It would seem, too, that this (Reason) is the true self of every man, since it is the supreme and better part. It will be strange, then, if he should choose not his own life, but some others...What is naturally proper to every creature is the highest and pleasantest for him. And so, to man, this will be the life of Reason, since Reason is, in the highest sense, a man's self.²⁴

Reason, for Aristotle, is what sets man apart from the animals. It is what makes a man human. It is, then, the highest part of our personality. A person's reason, is the real self of that person; it is the center of one's identity. "One's rational self is one's real self."²⁵

The syllogistic reasoning of Aristotle along with other elements of classicalism from various Greek thinkers and their writings, remained as a mean for scholasticism for hundreds of years. Greek thought, has in fact carried all the way to the present day. It has not been free, though, of strong challenges against it rules. Faith was the big challenge to the order of the Greek thought.

CHAPTER IV

As we have seen, to a degree, the Greek mind, for better or for worse, was very intellectualistic. The Greeks demanded an argued demonstration of everything. Aristotle had put forth his theory of knowledge according to which everything required syllogistic proof. Everything "except the ultimate first principles from which this proof was in the last resort derived."²⁶ These ultimate truths or first principles, were not matters of faith but were provable in a special way. All of the best minds involved in Greco-Roman thought devoted their faculties to elaborating and manipulating the instrument of precision given them by Aristotle.²⁷ Faith was to the Greek and Roman classical scholars a scandalous and ironically heathenistic thing, totally contrary to the scientific cast of all that stood for what was intellectually sound. To the Greek scholar it appeared as a reactionary and confused idea. It implied surrendering all of the ground that had been won by use of the syllogism and logical demonstration.²⁸ "The triumph of barbarism and religion," as Gibbon called it, seemed involved in the triumph of the Christian mind."²⁹

But the truth was the opposite of this. The Greek view of life involved cutting human thought into two parts, the one scientific, syllogistic, argumentative, and intellectually respectable; the other intuitive, immediate, irrational, and in the last resort superstitious. Under the first fell philosophy and the sciences; under the second, religion and everyday

perception.³⁰

Christianity was not about to do anything as preposterous as to reverse the Greek thought and place religion and everyday perception in front of philosophy and science. Christianity implemented its position by creating a new classification altogether. It divided the old classification of religion and everyday perception into two separate classifications. The Greeks had placed them together because they felt them both to be non-argumentative and therefore non-syllogistic forms of thought.

Christianity, more Aristotelian than Aristotle, recognized that two faculties whose objects were so widely different must themselves widely differ: the faith by which we apprehend the infinite and wholly spiritual nature of God must be utterly unlike the perception by which we apprehend the particular finite things in the world of sense. Hence the distinction between faith and sight. In exalting faith above reason, therefore, Christianity was not in any sense undoing the work of Greek thought, but rather building upon it.³¹

Reasoned thought, then, was not necessarily being challenged by this concept of faith as the Greeks had suspected it was. Christianity was merely adding to the already structured "syllogistically articulated knowledge of the natural world,"³² a knowledge in which we "apprehend not the finite but the infinite, not nature but the spirit, not the world but God."³³ Christianity had solved the problem that had defeated the Greek

mind.³⁴ So now there was a third term added to the hierarchical list (reason over sense). It now became faith over reason, then reason over sense.

The victory of Christianity is the beginning of the Middle Ages. Faith and reason are now recognized as two modes of knowledge: faith is that by which we apprehend God as the infinite, reason that by which we apprehend the natural facts as finite. Faith therefore is superior to reason as the infinite to the finite, but subject to that superiority, each has its own proper sphere and competence.³⁵

Though the spheres sound cut and dried and well-defined there is yet to be an all-purpose definition which will in all cases make it intelligible as to which sphere a specific thing may wholly belong.

Had it not been for Aristotle and his Greek confreres and their formal and classical structure of thought as regards the sciences, and life in general, we would not be as far along in our development of the sciences or in our religious views. If the early Christians would have had to put up entirely with barbaric peoples who relied entirely on sense experience and myths, Christianity may have been overcome. It was necessary that the Christians have a structured foundation on which they could firmly base their rites to their convictions, namely, their faith to their religion, Christianity.

APPENDIX

CONTENTS: PRIOR ANALYTICS

BOOK I		
A. STRUCTURE OF THE SYLLOGISM		
I. Preliminary Discussions		
CHAP.	BERLIN NOS.	
1. Subject and scope of the Analytics; certain definitions and divisions	24 ^a 10	
2. Conversion of pure propositions	25 ^a 1	
3. Conversion of necessary and contingent propositions	25 ^a 26	
2. Exposition of the Three Figures		
4. Pure syllogisms in the first figure	25 ^b 26	
5. Pure syllogisms in the second figure	26 ^b 34	
6. Pure syllogisms in the third figure	28 ^a 10	
7. Common properties of the three figures	29 ^a 19	
8. Syllogisms with two necessary premisses	29 ^b 29	
9. Syllogisms with one pure and one necessary premiss in the first figure	30 ^a 15	
10. Syllogisms with one pure and one necessary premiss in the second figure	30 ^b 7	
11. Syllogisms with one pure and one necessary premiss in the third figure	31 ^a 18	
12. Comparison of pure and necessary conclusions	32 ^a 6	
13. Preliminary discussion of the contingent	32 ^a 15	
14. Syllogisms in the first figure with two contingent premisses	32 ^b 38	
15. Syllogisms in the first figure with one contingent and one pure premiss	33 ^b 25	
16. Syllogisms in the first figure with one contingent and one necessary premiss	35 ^b 23	
17. Syllogisms in the second figure with two contingent premisses	36 ^b 26	
18. Syllogisms in the second figure with one contingent and one pure premiss	37 ^b 19	
19. Syllogisms in the second figure with one contingent and one necessary premiss	38 ^a 13	
20. Syllogisms in the third figure with two contingent premisses	39 ^a 3	
21. Syllogisms in the third figure with one contingent and one pure premiss	39 ^b 8	
22. Syllogisms in the third figure with one contingent and one necessary premiss	40 ^a 3	
3. Supplementary Discussions		
23. Every syllogism is in one of the three figures, is completed through the first figure, and reducible to a universal mood of the first figure	40 ^b 17	
24. Quality and quantity of the premisses of the syllogism	41 ^b 6	
25. Number of the terms, propositions, and conclusions	41 ^b 36	
26. The kinds of proposition to be established or disproved in each figure	42 ^b 26	
B. MODE OF DISCOVERY OF ARGUMENTS		
I. General		
27. Rules for categorical syllogisms, applicable to all problems	43 ^a 20	
28. Rules for categorical syllogisms, peculiar to different problems	43 ^b 39	
29. Rules for <i>reductio ad impossibile</i> , hypothetical syllogisms, and modal syllogisms	45 ^a 23	
30. 2. <i>Propter to the several Sciences and Arts</i>	46 ^a 3	
31. 3. <i>Division</i>	46 ^a 31	
C. ANALYSIS (1) OF ARGUMENTS INTO FIGURES AND MOODS OF SYLLOGISM		
32. Rules for the choice of premisses, terms, middle term, figure	46 ^b 39	
33. Quantity of the premisses	47 ^b 15	
34. Concrete and abstract terms	48 ^a 1	
35. Expressions for which there is no one word	48 ^a 29	
36. The nominative and the oblique cases	48 ^a 40	
37. The various kinds of attribution	49 ^a 6	
38. Repetition of the same term	49 ^a 11	
39. Substitution of equivalent expressions	49 ^b 3	
40. The definite article	49 ^b 10	
41. Interpretation of certain expressions	49 ^b 15	
42. Analysis of composite syllogisms	50 ^a 5	
43. Analysis of definitions	50 ^a 11	
44. Analysis of arguments <i>per impossibile</i> and of other hypothetical syllogisms	50 ^a 16	
45. ANALYSIS (2) OF SYLLOGISMS IN ONE FIGURE INTO ANOTHER	50 ^b 5	
46. 'Is not A' and 'is not-A'	51 ^b 5	
BOOK II		
PROPERTIES AND DEFECTS OF SYLLOGISM; ARGUMENTS AKIN TO SYLLOGISM		
A. Properties		
1. The drawing of more than one conclusion from the same premisses	52 ^b 38	
2. The drawing of true conclusions from false premisses; the first figure	53 ^b 4	
3. The drawing of true conclusions from false premisses; the second figure	55 ^b 2	
4. The drawing of true conclusions from false premisses; the third figure	56 ^b 3	
5. Circular proof; the first figure	57 ^b 18	
6. Circular proof; the second figure	58 ^b 13	
7. Circular proof; the third figure	58 ^b 39	
8. Conversion; the first figure	59 ^b 1	
9. Conversion; the second figure	60 ^a 15	

10. Conversion; the third figure	60 ^b 6	19. How to impede opposing arguments and conceal one's own	66 ^a 25
11. <i>Reductio ad impossibile</i> ; the first figure	61 ^a 17	20. When refutation is possible	66 ^b 3
12. <i>Reductio ad impossibile</i> ; the second figure	62 ^a 20	21. Error	66 ^b 18
13. <i>Reductio ad impossibile</i> ; the third figure	62 ^b 5	<i>C. Arguments akin to Syllogism</i>	
14. Comparison of <i>reductio ad impossibile</i> and ostensive proof	62 ^b 29	22. Rules for conversion and for the comparison of desirable and undesirable objects	67 ^b 26
15. Reasoning from opposites	63 ^b 21	23. Induction	68 ^b 8
<i>B. Defects</i>		24. Example	68 ^b 37
16. <i>Petitio principii</i>	64 ^b 28	25. Reduction	69 ^a 20
17. False Cause	65 ^a 38	26. Objection	69 ^a 37
18. Falsity of conclusion due to falsity in one or more premisses	66 ^a 16	27. Enthymeme	70 ^a 3

CONTENTS: POSTERIOR ANALYTICS

BOOK I

CHAP.	BERLIN NOS.
1. The student's need of pre-existent knowledge; its nature	71 ^a 1
2. The nature of scientific knowledge; the conditions of demonstration; the meaning of Contradiction, Enunciation, Proposition, Basic truth, Thesis, Axiom, Hypothesis, Definition	71 ^b 8
3. Two erroneous views of scientific knowledge; the futility of circular demonstration	72 ^b 5
4. Types of attribute: 'True in every instance', 'Essential', 'Commensurate and universal', 'Accidental'	73 ^a 21
5. Causes through which we erroneously suppose a conclusion commensurate and universal when it is not; how to avoid this error	74 ^a 4
6. The premisses of demonstration must be necessary and essential	74 ^b 5
7. The premisses and conclusion of a demonstration must fall within a single genus; the three constituent elements of demonstration	75 ^a 38
8. Only eternal connexions can be demonstrated	75 ^b 21
9. Demonstration must proceed from the basic premisses peculiar to each science, except in the case of subalternate sciences	75 ^b 36
10. The different sorts of basic truth	76 ^a 31
11. The function of the common axioms in demonstration	77 ^a 5
12. The scientific premiss in interrogative form; formal fallacy; the growth of a science	77 ^a 36
13. The difference between knowledge of the fact and knowledge of the reasoned fact	78 ^a 22
14. The first figure is the true type of scientific syllogism	79 ^a 16
15. Immediate negative propositions	79 ^a 33
16. Ignorance as erroneous inference when the premisses are immediate	79 ^b 23
17. Ignorance as erroneous inference when the premisses are mediate	80 ^b 16
18. Ignorance as the negation of knowledge, e.g. such as must result from the lack of a sense	81 ^a 37
19. Can demonstration develop an indefinite regress of premisses, (1) supposing the primary attribute fixed? (2) supposing the ul-	81 ^b 10

timate subject fixed? (3) supposing both primary attribute and ultimate subject fixed?	82 ^a 21
20. If (1) and (2) are answered negatively, the answer to (3) must be in the negative	82 ^a 21
21. If affirmative demonstration cannot develop an indefinite regress, then negative demonstration cannot	82 ^a 36
22. Dialectical and analytic proofs that the answer to both (1) and (2) is in the negative	82 ^b 36
23. Corollaries	84 ^b 3
24. The superiority of universal to particular demonstration	85 ^a 12
25. The superiority of affirmative to negative demonstration	86 ^a 31
26. The superiority of affirmative and negative demonstration to <i>reductio ad impossibile</i>	87 ^a 1
27. The more abstract science is the prior and the more accurate science	87 ^a 31
28. What constitutes the unity of a science	87 ^a 38
29. How there may be several demonstrations of one connexion	87 ^b 5
30. Chance conjunctions are not demonstrable	87 ^b 18
31. There can be no demonstration through sense-perception	87 ^b 27
32. Different sciences must possess different basic truths	88 ^a 17
33. The relation of opinion to knowledge	88 ^b 30
34. Quick wit: the faculty of instantaneously hitting upon the middle term	89 ^b 10

BOOK II

1. The four possible forms of inquiry	89 ^b 21
2. They all concern the middle term	89 ^b 36
3. The difference between definition and demonstration	90 ^a 35
4. Essential nature cannot be demonstrated	91 ^a 12
5. Essential nature cannot be inferred by division	91 ^b 11
6. Attempts to prove a thing's essential nature either hypothetically or through the definition of its contrary beg the question	92 ^a 6
7. Definition does not touch the question of existence; demonstration proves existence; hence definition cannot demonstrate	92 ^a 33
8. Yet only demonstration can reveal the	93 ^a 1

- essential nature of things which have a cause other than themselves—i.e. attributes
9. That which is self-caused—the basic premisses—is grasped immediately 93^b 21
10. Types of definition 93^b 28
11. The several causes as middle terms 94^a 20
12. The question of time in causal inference 95^a 10
13. How to obtain the definition of a substance; the use of division for this purpose 96^a 20
14. How to select a connexion for demonstration 98^a 1
15. One middle will often serve to prove several connexions 98^a 24
16. If the effect is present, is the cause also present? Plurality of causes is impossible where cause and effect are commensurate 98^a 35
17. Different causes may produce the same effect, but not in things specifically identical 99^a 1
18. The true cause of a connexion is the proximate and not the more universal cause 99^b 7
19. How the individual mind comes to know the basic truths 99^b 15

FOOTNOTES

¹Will Durant, The Story of Philosophy (New York: Washington Square Press, Inc., 1964), p. 49.

²Aristotle, On Man in the Universe, ed., Louise Loomis (New York: Walter J. Black, Inc., 1943), pp. vi-vii.

³Durant, p. 49.

⁴Ibid., p. 49.

⁵Ibid., p. 50.

⁶Ibid., a quote from Benn, The Greek Philosopher (London: 1882), Vol. I, p. 238.

⁷Aristotle, p. x.

⁸Ibid., p. x.

⁹Durant, p. 53.

¹⁰Ibid., p. 53.

¹¹Ibid., p. 53.

¹²John Rowe Workman, "Aristotle", Encyclopedia Americana, (1965), II, p. 241.

¹³Sir Ernest Barker, "Aristotle", Encyclopedia Britannica, (1967), II, pp. 391-392.

¹⁴Durant, p. 54.

¹⁵Barker, p. 392.

¹⁶Durant, pp. 54-55. Taken from Zeller, Aristotle and the Earlier Peripatetics (London: 1897), Vol. I., pp. 264 & 443.

¹⁷Ibid., p. 55.

¹⁸Ibid., p. 56.

¹⁹Ibid., p. 56.

²⁰Emile Brehier, The Hellenic Age, trans. Joseph Thomas (Chicago: The University of Chicago Press, 1965), p. 164.

²¹Robert Maynard Hutchins (ed.), Great Books of the Western World (Chicago: Encyclopedia Britannica, Inc., 1955), Book 8, Aristotle, Vol. I., pp. 108-109.

²²Ibid., p. 109.

²³William Barrett, Irrational Man (New York: Doubleday and Company, Inc., 1962), p. 89.

²⁴Ibid., p. 89.

²⁵Ibid., p. 89.

²⁶R. G. Collingwood, Faith and Reason (Chicago: Quadrangle Books, Inc., 1968), p. 108.

²⁷Ibid., pp. 108-109.

²⁸Ibid., pp. 109-110.

²⁹Ibid., p. 110.

³⁰Ibid., p. 110.

³¹Ibid., p. 110.

³²Ibid., p. 110.

³³Ibid., p. 110.

³⁴Ibid., p. 132.

³⁵Ibid., p. 134.

BIBLIOGRAPHY

- Aristotle, On Man in the Universe. Ed. Louise Loomis. New York: Walter J. Black, Inc., 1943.
- Barker, Sir Ernest, "Aristotle", Encyclopedia Britannica, (1967). 24 Vols., Vol. II, 391-392.
- Barrett, William, Irrational Man. New York: Doubleday and Company, Inc., 1962.
- Bradshaw, Marion John, Philosophical Foundations of Faith. New York: AMS Press, 1969.
- Brehier, Emile, The Hellenic Age, trans. Joseph Thomas. Chicago: The University of Chicago Press, 1965.
- Collingwood, G. G., Faith and Reason. Chicago: Quadrangle Books, Inc., 1968.
- Durant, Will, The Story of Philosophy. New York: Washington Square Press, Inc., 1964.
- Gibson, A. Boyce, Theism and Empiricism. New York: Schocken Books, Inc., 1970.
- Hartshorne, Charles, Beyond Humanism. Lincoln, Nebraska: University of Nebraska Press, 1969.
- Hutchins, Robert Maynard, (ed.), Great Books of the Western World. Chicago: Encyclopedia Britannica, Inc., Book 8, "Aristotle", Vol. I., 1955.
- Workman, John Rowe, "Aristotle", Encyclopedia Americana, (1965). 30 Vols., Vol. II., 241.

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