Aristotle

The Immobile Mover: Translation, Introduction and Commentary

by

Giovanni Reale

Translated by

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Abstract:

This is a translation of *Il Motore Immobile* (Metafisica, libro XII), Traduzione integrale, introduzione e commento by Giovanni Reale (Editrice La Scuola, Brescia, 4th Ed. 1971). The author offers a unitary reading of the famous twelfth book of Aristotle's *Metaphysics*. The book is intended for students who wish to read the text itself of Aristotle's, so that the introduction and commentary to the text and the summaries of the entire *Metaphysics* as well as the twelfth book gives the student ample material to read the text intelligently. The work is aware of the current state of Aristotelian studies but does not intrude them into the commentary, because they should be reserved for more specialized work which the author has completed.
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Preface

This work has been prepared for the use of the student who wishes to come to grips directly with the text of Aristotle. It is not meant for those students who wish to obtain a general knowledge of Aristotle's thought—for them there are many fine histories of philosophy. But it is intended for those students who desire to grapple in the concrete with the text of Aristotle, that is, with the text of his greatest work, the Metaphysics.

There were two options open in writing a work of this kind: the first, to present some or all of the most significant passages from the fourteen books of the Metaphysics or to present systematically and completely only one book. Of the two options, the latter is by far the better.

In the first place the Metaphysics does not lend itself to being anthologized because of the very special way in which it was written and structured; parts, if treated in this manner, would lose their distinctive character and meaning (for example, the third, the fifth, the tenth, the eleventh, and in part the thirteenth and fourteenth books). Even those parts that could be anthologized would be done so only imperfectly and inadequately.

In the second place, the Metaphysics offers at least one book—the twelfth—which while presenting the solution of the central problem of Aristotle's metaphysical inquiry, also outlines in a synoptic view all the principal metaphysical problems of the Metaphysics. Anyone reading the twelfth book has, thus, an almost complete survey of the metaphysical positions of Aristotle: for these reasons we decided to present a complete edition of the twelfth book instead of a selection of passages.

The coin, of course, has its reverse side. The synthesis of the problems and solutions especially in the first five chapters (those which summarize the general doctrines of substance and of the primary causes and principles) is quite dense and sometimes excessively concentrated. Aristotle assumes the hearers familiarity with the above-mentioned doctrines which were treated more completely in the preceding books. So he is content with the result that he is often somewhat difficult to comprehend. Because of these difficulties—insuperable for anyone confronting the text for the first time—we have written (in addition to a synthetic introduction) an analytic commentary which provides all that
is necessary for the comprehension of the text. We could have eliminated without difficulty some sentences which were perhaps too obscure; but we have not done so, because it is always damaging to "cut up" the text of an author and more so in the case of Aristotle and the *Metaphysics*. Only the absolute integrity of the text can reveal a 'style' and a mode of philosophizing which is authentically Aristotelian, and the labor involved in understanding those difficult passages will be repaid in deeper insight into the meaning.

A final difficulty is produced by the critical setting of the problem in contemporary scholarship concerned with Aristotle's *Metaphysics* in general, and, in particular, with the twelfth book.

Werner Jaeger has maintained that the twelfth book is one of the first or earliest products of Aristotle's thinking (with the exception of chapter eight) and hence valid only as a stage in the thought of the Stagirite. (See Aristotle: *Fundamentals of the History of his Development*; Oxford: Clarendon Press 1948, 2nd Ed. Trans. R. Robinson).

More recently there have been studies that have exactly reversed Jaeger's conclusions thus maintaining that Book twelve is a late product of Aristotle's speculation. (Emilio Oggioni, *Aristotele, La Metafisica*, Padova, 1950; Max Wundt, *Untersuchungen zur Metaphysik des Aristoteles*, Stuttgart, 1953; Paul Gohlke, *Die Entstehung der aristotelischen Prinzipienlehre*, Tubingen, 1954).

We will not consider the problems that these scholars have raised at all. Anyone coming to grips with the text of Aristotle for the first time needs to understand first what the text actually says; only at a later time--eventually--will he confront the complex problems of interpretation. We have considered these problems extensively in our work: *Il concetto di filosofia prima e l'unità della Metafisica di Aristotele* (Milano, Vita e Pensiero, 1967, 3rd Ed.), and in an article: "La dottrina aristotelica della potenza, dell' atto e dell'entelechia nella Metafisica" in *Scritti di filosofia e di storia della filosofia in onore di F. Olgiati*, Milano, Vita e Pensiero, 1962 and part of the volume: *Teofrasto e la sua aporética metafisica* (Brescia, La Scuola, 1964) especially pages 103-133. To these works we direct the readers attention.

We have based the translation on the Greek critical edition of Ross (*Aristotle's Metaphysics. A Revised Text with Introduction and Commentary*, Oxford, 1923, rev. 1948, 1953) from which we have departed only a few times.
Among the commentators, we have had occasion to consult: Alexander of Aphrodisias (In Aristotelis Metaphysica Commentaria, ed. Michael Hayduck, Berlin, 1891) and St. Thomas (In duo-decim libros Metaphysicorum Aristotelis expositio, ed. by Cathala, Nuove Edizione, Roma-Turino, 1950); A. Schwegler (Die Metaphysik des Aristoteles, 4 vols. Tubingen, 1847-48, the commentary is in the third and fourth volumes); H. Bonitz (Aristotelis Metaphysica, 2 vols. Bonn, 1848-49, the commentary is in the second volume); Tricot (Aristote: La Métaphysique, Nouvelle édition entièrement refondue, avec commentaire, 2 vols. Paris, 1953); in addition the commentary of Ross in the work previously cited above.

Among the translations, we have seen, besides those in Italian of R. Bonghi (re-edited by M. F. Sciacca, Milano, Bocca 1942-47, 3 vols.); P. Eusebietti (edited by E. Oggioni in the volume cited above): and A. Carlini (Bari, Laterza, 1928, 1950 and many others in other languages.

So, in French, the work of Tricot previously mentioned; in German, Schwegler (the work cited above); Rolfes (Aristoteles Metaphysik, 2 vols. 1920-21); P. Gohlke (Aristoteles Metaphysik, Paderborn, 1951). In English, we have consulted the excellent work of Ross (The Works of Aristotle, translated into English, volume VIII, Oxford, 1928). As well as Hippocrates G. Apostle, Metaphysics, translation with commentary and glossary, Indiana University Press, 1966.

Among the translations of only the twelfth book, we mention the recent Italian work of D. Composta, S. E. I. Torino, 1960.

In 1968, we finished and published with Editore Loffredo di Napoli, a complete translation with an extensive introduction and commentary of all fourteen books of the Metaphysics (Aristotele, La Metafisica, traduzione, introduzione e commento di Giovanni Reale, 2 vols.). And although this work was a preparation in general and a trial run even after the complete edition, mentioned above, it has maintained its specific function and value.

For further bibliographical information consult the pages of our volume Il concetto di filosofia prima p. 321 and following [English translation forthcoming entitled, The Concept of First Philosophy and the Unity of the Metaphysics of Aristotle, translated by John R. Catan, see pp. 461-532; and the second volume of our work, La Metafisica, pp. 451-502.
Translator's Preface

One point that may disturb the reader of this work of the eminent Italian scholar Professor Giovanni Reale is the use of the capitalized form of God throughout the volume. The reason it is used, is quite simple: Professor Reale uses it in his text. I was somewhat sensitive to its presence and its potential for misunderstanding but on reflection, I decided to conform to my author's stated preference. My justification was not simply one of loyalty to the text but a sense that this text of Aristotle's has a long history in Christian thinkers reflections on God. Although there is no identity of conception as such of the God of Aristotle with the God of the Christian faith, there certainly is some likeness to that God. So in order to keep faith with the tradition of the text as well as with the text itself, I have retained Professor Reale's capitalization.

It remains for me to acknowledge the people who have encouraged me in my work of translation. First my wife Gilda Mattei Catan, and my brother Mr. Paul Catan. My students Mary Rose McCarthy Palumbos and Kevin Bauer. I also owe a debt of gratitude to Professor Reale for his permission and support. And finally my master, to whom Aristotelian scholarship owes a great debt, Father Joseph Owens, C.Ss.R. of the Pontifical Institute of Medieval Studies in the University of Toronto, Canada.

Brockport, N.Y. John R. Catan
State University of New York 1976
Introduction

The Concept and Structure of the Aristotelian Metaphysics

1. The definition of metaphysics

The term "metaphysics" was not coined by Aristotle and does not occur in any part of his works. Its genesis is not wholly certain. According to an old theory, it was believed many years ago that the term was coined in the first century after Christ by the first editor of the Corpus Aristotelicum. This editor in order to designate the fourteen books which make up the treatise but which Aristotle called "first philosophy", and to distinguish this work from the eight books of the Physics, which were published immediately before, had used the expression ἡ μετὰ τὰ φυσικά, meaning "the books which come after those of the physics", or literally, "the things which come after the physical things". But recent studies concerned with the ancient catalogues of the works of Aristotle have shown that the term "metaphysics" arose in the 3rd century B.C. and further that it was coined by a student of Aristotle's. If this is correct, the title does not refer to a simple editorial designation, but ought to refer in some specific way to the subject of the inquiry carried on in the fourteen books.

The fact still remains that posterity has preferred the term "metaphysics" to the original Aristotelian formula "first philosophy" (πρώτης φιλοσοφίας) because (prescinding from the intention of the one who coined it) the title Metaphysics suggests in a very pregnant and incisive manner the concept of which the book claims to be the expression. We will soon see that "first philosophy" is concerned with the inquiry into the primary causes and principles and that it is also an inquiry concerned with God, who is the absolutely primary cause and supreme principle; therefore, "first philosophy" is concerned with the things that are beyond or in addition to the physical things, thus metaphysicals, and, in that sense, the subject matter of the books is precisely, meta-physics.

2. Metaphysics as the science of the primary or supreme causes and principles

We have mentioned that metaphysics is the science of the primary causes and principles; now, we must investigate the significance of this statement, by determining, first, the Aristotelian concept of "science" and then "cause" and "principle", and lastly, the sense of "supreme".

We can get a notion and understanding of phenomena at different levels. What we mean is the following: take a lunar eclipse; now, everyone knows the fact, it is an eclipse because they see it; few however,
are in a position to know why there is an eclipse. In the first instance, we have merely the knowledge of an empirical fact whereas in the second case we possess the science of that fact. Again, everyone knows the fact that fire burns—and it is easily grasped through experience--; but, few know why fire burns; the one who possesses the science is not the one who knows the fact but he who knows the cause or causes of the fact. We will use one last illustration, formulating it in modern terms, which Aristotle clearly could not possibly have done, but which may better clarify the philosophical issue involved than the preceding examples. Everyone knows through experience, that water quenches thirst, refreshes, and cleanses; many, on the basis of very wide experience know that it also solidifies at a given temperature, that it evaporates at another temperature, and that it forms the clouds, the rain, rivers and the seas: but up to this point, there is no true and proper science of water. Only those possess the science of water who, in addition to a knowledge of the aforementioned properties know the formula i.e. the chemical structure of water: the why of water is in fact this structure.

In general, we may say, therefore, that someone has the science of something when he possesses the knowledge of the why or the formal cause of the thing i.e. when he knows that through which the properties are thus and not otherwise. He who possesses science, thus, knows not only that the things of which he has science are in a determined way but he knows especially why it is that way and why it can only be that way and no other.

The understanding now achieved of the Aristotelian concept of science immediately introduces us to the meaning of "cause" and "principle". We said immediately because these two terms are used more or less as synonyms and we will define them that way.

The "cause" or "principle" of a thing is nothing other than the why of the thing itself, of which we spoke about previously: it is the what or the that through which a thing is and is that which it is. The causes and the principles of things may be, therefore, defined as the conditions or the foundations of things, in so far as they determine and are the foundation of the things themselves: if the causes and the principles are eliminated, the things themselves are by that fact eliminated. If we eliminate the causes of the eclipse, we also eliminate the eclipse itself; if we destroy the given relation between the elements that form water--that which is, indeed, the cause of water--, we destroy water itself.

The full understanding of the definition of metaphysics with which we began requires a final explanation of the adjectives "first" and "supreme" which qualify the notion of the causes and principles. When anyone possesses a knowledge of
the causes and the principles of anything, he always possesses the science of the thing, but not necessarily metaphysical knowledge. Metaphysical knowledge or science is possessed only when someone grasps certain causes and certain principles. But which causes and principles? Precisely those which are first and supreme. But what is the meaning of the terms "primary cause" or "supreme principle"?

On this point, Aristotle, is quite precise. If we study the causes of celestial phenomena, we will have astronomical science; if we investigate the causes and principles of animals and of their life, we will achieve zoological science; if we inquire into the causes and principles of atmospheric phenomena, we will possess the science of meteorology, and so on with countless examples. When, then, can someone be said to have metaphysical knowledge? Not when he studies and possesses a knowledge of the causes and principles that are valid for only a particular kind of reality, that is, for groups of things, and hence limited to a circumscribed "section" of being; but-and this is the important point-when he inquires and determines what the causes and principles of the whole of things are without distinction, of the whole of reality without restriction, therefore, of the whole of being. This is what we mean by the "primary" or "supreme" causes and principles: the causes and principles which condition the whole of reality, that is, which condition all beings in their totality.

Therefore, metaphysics is the science of the ultimate why or what of the whole of things, of the supreme causes of reality, so it is the science without equal, superior to all the other sciences; it is, says Aristotle, the divine science for two reasons: in the first place, because it is the science of God (God is, in fact, the supreme principle and the first of the causes), and, in the second place, because if anyone were to possess this science in its entirety and perfection that individual would be God.

Such is the sublimity of metaphysics.

3. Metaphysics as the science of being qua being

Aristotle did not, however, define metaphysics only in the previously mentioned manner: he has given us three other definitions which, in various ways, were integrated and form a perfect unity. Let us consider each of them individually.

At the beginning of the fourth book of the Metaphysics,
metaphysics is characterized as "the science which inquires into being qua being and its essential properties". This definition has had a great success over the centuries, but it is somewhat difficult to grasp in its authentic meaning. We will try to clarify it as we have done for the preceding definition; we will find that in the last analysis, it comes down to saying the same thing as the previous one, with only a difference of "perspective".

"There is a science which studies being qua being and its essential properties. It does not coincide with any of the special sciences: none of the special sciences inquire universally with respect to being qua being, but, after having delimited a part of being, they study its properties; thus, mathematics proceeds."(chpt. I) The special sciences, Aristotle tells us, in this passage, are restricted to the to the consideration of only a part of being, isolating it from the remaining part and determining its special characteristics and properties. Mathematics, for example, studies that particular part of being which is determined by number and of this part it inquires into the properties: equality and non-equality, measurability and non-measurability, etc.; physics studies that part of being which is natural being and determines its characteristics such as movement; similarly, zoology studies the kind of being called animals and their properties, their generation, the particular structure and so on.

Metaphysics is characterized differently than these sciences which are called "special" because, whereas they are limited to a particular area of reality, it extends to the whole of reality, to everything insofar as it is or as Aristotle says, to being as such (being qua being).

Therefore, the expressions--reality qua reality or being qua being--signify the whole of reality or being, in contradistinction to "parts" or "sections" of it; they indicate not this given reality or this kind of being but the whole of reality or the whole of being.

Recalling what we said in the preceding paragraph concerning the concept of "science" will enable the reader to make sense of this new definition of metaphysics: science is the knowledge of the causes and principles, the science of being qua being is "the science of the causes and principles of being qua being" (chpt. I). This means that metaphysics is the knowledge or the science of the reasons or of the conditions or of the principles on which the reality, the being of things in their totality is based.
As can be seen, then, this definition converges exactly with the preceding one; the science of the supreme causes and principles is nothing other than the science of reality or of being as such and vice versa; in fact, the "supreme" cause is valid for the whole of reality and for every being and conversely, the causes of reality as reality or of being qua being which could not be so if they were not "supreme" causes but were only particular causes, because, otherwise they would simply be valid for this or that determined being and not for being as such.

4. Metaphysics as a theory of substance

Aristotle has, then, repeatedly characterized his metaphysics as a "theory of substance" and the metaphysician as one who speculates about "the whole range of substances".

Actually, the most important books of the Metaphysics are wholly concerned with substance and the others constantly and continually refer to it. There is no doubt that the problem of substance constitutes the core of first philosophy, being, as Aristotle explicitly says is, "the most important, the first, one could say the only one". (Met. Bk. 7, 1).

How does this definition agree with the preceding ones? Aristotle replies clearly. Metaphysics, the preceding definitions have said, is the science of the primary causes and principles or the science of the causes and principles of being. Now, according to the Stagirite, being is—and we have seen this previously—fundamentally "substance": all the other significations that being can have, have reality only because they belong to the being of substance and they reduce ultimately to a mode of being of substance itself. If this is so, the science of the causes and the principles of being are nothing other than the science of the causes and the principles of substance. Aristotle speaks of it in this sense repeatedly and without any possibility of ambiguity.

For example, in the first book, he says that the inquiry into the causes of being "is possible only through substance"; in the fourth book he says that the metaphysician is one who fundamentally possesses the "causes and principles of substance" in the twelfth and the eighth books in briefly defining the subject of the inquiry proper to metaphysics, Aristotle characterizes it as the inquiry "into the causes and principles of substance" and likewise in many other places.
5. **Metaphysics as a theory of God or theology**

But Aristotle has also defined metaphysics in a fourth way: as a study of God, that is, as theology. In the first book -- as we have already indicated, first philosophy is characterized as "the science of divine things", in the sixth and in the eleventh, he explicitly qualifies it as "theology".

Let us consider the reasons for these affirmations and how they are in agreement with the preceding ones.

Anyone who seeks the primary causes and principles necessarily must encounter God: God, in fact, says Aristotle is undoubtedly a cause and principle. Therefore, the inquiry into the causes leads inevitably to a theology.

But the same conclusion follows from the two other definitions: to ask "what is being" says the seventh book means simply to ask "what is substance", because it is said that being is fundamentally substance. Now the question "what is substance" structurally and in its very constitution implies this second and still more radical question: what substances exist?" Do there exist only sensible or corruptible substances or beings or do there also exist non-sensible or eternal substances or beings? To reply to this question actually means to establish whether or not there is a divine substance, that is, whether or not God exists. Therefore, to inquire into being and into substance must, of necessity, lead into theology (see Book 7,2).

Now we can understand why Aristotle in order to qualify metaphysics with a precise term in contradistinction to the other speculative sciences as physics and mathematics used another expression "theology" instead of the more generic "first philosophy". (see Book 6,1).

But there is more.

On the basis of what we have said: it is sufficiently clear that the inquiry about God is not only a perspective of the metaphysical inquiry, but that it is its essential and defining dimension. If there is no immobile substance which is supersensible and eternal, that is, if God does not exist -- Aristotle would explicitly say -- there would be no metaphysics and physics would be the highest science: "if there does not exist another substance beyond the sensibles, physics would be the primary science." (Book 6,1).

For what reason?
It is simple to demonstrate. If there were no God, the causes and principles would be natural ones, that is, those that are "physical" and no others. If there were no God, the whole of being would be reduced to natural being, to physical being. If there were no God, the only substances existing would be physical ones. What would be, would be natural causes and no science other than that of nature and of natural causes, that is, physics.

In this sense, "meta-physics" is a term which suits to perfection the science about which we are concerned.

Let us recapitulate:

The metaphysical inquiry is: 1—an inquiry into the supreme causes and principles
2—a science of being qua being
3—a study of substance
4—a science of God

6. The three theoretical sciences. The differences between physics, mathematics and metaphysics.

Aristotle distinguishes the sciences into: practical, productive and theoretical; and the last, he divides into: physics, mathematics, and metaphysics.

We can schematize the above distinctions in the following way:

Science is distinguished into: 1—practical science
2—productive science
3—theoretical science
   a—physics
   b—mathematics
   c—theology or metaphysics

The practical sciences look to action and they have ... their principle or beginning and their terminus in the subject itself that acts: these are moral actions. It is clear, in fact, that moral actions have their beginning in the subject and that they return and perfect the subject itself, that is, the moral agent. The productive sciences are concerned on the contrary, with those actions which have their beginning in the subject, but which terminate in something extrinsic to the subject itself; such are, for example, all the operations and the productions of art: a construction, a remedy, a sound, and so on (...).
Clearly distinct from the practical and productive sciences are the theoretical sciences: these are not concerned with moral action nor production but have their goal in pure knowledge, that is, in pure knowledge as such.

Physics is concerned with the substance which has the capacity for movement, that is, with sensible substance: let us recall that Aristotelian physics has little in common with modern physics. Modern physics is a quantitative science whereas Aristotle's is qualitative; modern physics translates everything into quantity and number. Aristotle's inquires into essence or form. Compared to modern physics, Aristotle's is more a metaphysics of the sensible world; the points to which Aristotle leads the physical inquiry often trespass into metaphysics.

What does mathematics study? The Platonists as is well-known (and before them the Pythagoreans, but in a different way), had believed that the subject of mathematics was substance, true and proper; a substance having a mode of being diverse from sensible things, and, in fact existing outside of sensible things, in itself and for itself. Aristotle clearly rejects this way of looking at mathematical and corrects it as follows. Mathematics does not concern sensible things as such, i.e. separately existing substances. Sensible things have diverse qualities and properties which are peculiar to them; there are, for example, the peculiarities that are human in so far as they are masculine and feminine and whatever follows from it; analogically, says the Stagirite, there are peculiarities of a body considered as having length and depth. Now mathematics considers the thing in terms of the following: that is, as having length and depth and ultimately, the consideration of the characteristics which follow on these properties. Length and depth in mathematics are considered in separation from all the other aspects, by subtraction. It is therefore, clear that the subjects treated by mathematics are not entities subsisting in themselves but only existing by subtraction i.e. consequent on an operation of the intellect, which can consider a thing in a certain way prescinding from the other aspects.

Thus characterized, the objects of physics and mathematics will also aid in the clarification of the object of metaphysics. While mathematics does not inquire into substance, but only determined aspects of substances; while physics also inquires only into sensible substances and those in movement; whereas metaphysics is concerned with that substance which is other than that of physics, that
is, it is concerned with that substance which is supersensible
that is, immobile and eternal (God).

7. The absolute superiority of metaphysics with respect to
the other sciences.

The theoretical sciences, according to Aristotle, are
superior to both the practical and productive sciences, and
in its way metaphysics is superior to the two other theoret­
cal sciences. Thus, metaphysics is the absolutely primary
knowledge which is the most noble and sublime.

But "of what use" is metaphysics? To put the question in
this way is put the question from a viewpoint that is
antithetical to that of Aristotle. Metaphysics is the high­
est science because it is of absolutely no use.

Let us clarify this: metaphysics is not a science which
is directed to the realization of anything of an empirical
nature or indeed to the realization of any practical goals.
The sciences that have an aim are subservient to that aim
and are not of value in and for themselves but only in the
measure in which they lead to that effect. Metaphysics, on
the contrary, is a science which is of value in and for
itself because it has in itself its own goal and in this
sense it is the "liberal" or "free" science par excellence.

But someone might object, how does it develop
is its reason for being? Metaphysics, Aristotle replies,
is born of the wonder and amazement that human beings feel
in the presence of things; born, then, from a pure love of
wisdom, born from that seed which is rooted in the nature
of man himself for knowledge and wisdom; in fact, prescind­
ing from any practical advantage whatsoever which wisdom
can cause, man loves wisdom for itself. Metaphysics, there­
fore, is the science which responds to this human need for
knowledge for its own sake.

It is clear, then, for all the reasons mentioned before
why Aristotle has called metaphysics the "divine science".God above all must have this science which has in itself
its own goal. God possesses it entirely and perfectly and
continually; we, on the contrary, have it partially, im­
perfectly and intermittently. But purely within these limits
man has a point of contact with God. The contact is two­
fold, as we have seen already; in the first place, because
metaphysics is the science which has God for its object,
and, in the second place, because metaphysics is the same
kind of wisdom which is proper to God.
The man who possesses metaphysical knowledge is close to God and in this knowledge Aristotle adds, is man's greatest felicity. God is happy by knowing and contemplating himself; man is happy by knowing and contemplating the supreme principle of things, and, therefore, God is primary and before all things. In this knowledge, man perfectly realizes his nature and essence, which, indeed, consists in rationality and intelligence.

In this sense, Aristotle can say: "all other sciences can be more necessary for men but none are superior to this one" (Cf. Bk. I, 2). A statement which if understood in function of what was said above, can also be rendered correctly in this way: the other sciences can be quite necessary for the realization of particular practical goals but metaphysics is the most necessary, because in it and with it, man realizes his nature as a rational being and satisfies the most profound need arising from his nature: that of being wise.
After investigating and clarifying the definition of the science of "metaphysics", let us now turn to a synthetic explanation of its contents.

Let us begin from the most radical question: What is being?

1. The meanings of being

Aristotle replies that being has four fundamental meanings: a) there is being in the meaning of truth, b) being in the meaning of accident, c) being in the meaning of substance and the other categories, d) and being in the meaning of potency and act.

Being can mean: a) being as truth  
b) being as accident  
c) being as substance and the categories  
d) being as act and potency

Being as truth and being as accident fall outside the the metaphysical inquiry. The first, in fact, is a purely mental being, which exists therefore only in thought and not outside it, and consists in the logical and epistemological operations of thought itself.

Being as accident is revealed, instead, by all those aspects of reality which are merely casual and fortuitous, that are but that also may not be. That you are pale, that you have short hair, that you are musical etc., are examples of being in the sense of accidents: "it happens" that you have short hair etc., but it could well be or happen otherwise. Aristotle defines being as accident as that which is neither always nor for the most part; it is a question, hence, of a mode of being, which is outside of necessity and for the most part, which cannot be the subject of a science. Science, in fact, is solely concerned with that which is always and for the most part; further, it is concerned with the causes and principles of that which is always or for the most part. The causes of accidents are indeterminable; and because of this they fall outside the possibility of scientific knowledge and, hence, also of the science of metaphysics.

Metaphysics is concerned with the remaining meanings of being: with being as substance and the categories as well as being as potency and act. Let us begin with an examination of the categories.
2. Being as found in the schema of the categories.

From the numerous affirmations in the Metaphysics it is clear that the "schema of the categories" refers to the basic significations of being.

But what are the "categories"?

It is impossible to clarify this concept except by beginning from a preliminary characterization of substance. What is a substance? A substance is, for example, a man, a horse, a plant and so on; substance in the most general sense of the term, is all those individual entities and all those things that have their own being i.e. everything which does not have its being from another. It is clear, then, that reality and being are not the only substances: for there are multiple aspects of things that are, which do not have an independent existence of themselves. For example, the quality of things, the dimensions or the quantity of things, their relations, their actions and passions, place or time in which they are found. Now, having a proper regard for all these aspects and in order to comprehend them fully Aristotle has drawn up a "table" of the categories. There are different versions of the table: in the Categories and in the Topics, Aristotle had enumerated ten categories, in the Metaphysics, on the contrary, and in other works, he lists only eight.

Here is the complete list:

1) substance - ὑποτεκνή  
2) quality - ποιοτία  
3) quantity - ποσότητα  
4) relation - πράξη  
5) action - πραγματική  
6) passion - παθήσεις  
7) place - τόπος  
8) when - χρόνος  
9) having - ἔχω  
10) position - τόπος

Concerning substance we have already spoken briefly and we will return to it more fully in the next paragraph. Quality is, for example, being white or black, musical, compassionate etc., quantity is being great, small, heavy, light etc., relation is being a son of, brother of, friend of etc. actions are all active operations: to walk, to jump, to cut etc., passions are the operations that we passively submit to: being transported, being struck, being cut, etc.; where is the place in which we are situated: the room of the house in which we are, the mall or the walk etc.; when indicates the time in which a given thing becomes or exists. Having and position are easily reduced to the other categories; an example of having is being armed, in the sense of having a suit of armor which can be reduced to a relation; position
can instead be reduced to place. The list of eight categories is, hence, probably that which Aristotle considered more valid.

**Being, therefore, has as many significations as there are categories which are distinct from one another.**

However, of the eight or ten categories, the first which is substance, is the one that is most important, insofar as it conditions and makes the others to be. Quality, let us suppose, does not exist except as a quality of this or that thing (substance), quantity has no being except that there is a substance which has the quality and the same thing can be said for all the other categories. In summary: if the substance is destroyed, by that fact, all the other categories would be destroyed.

It is clear, hence, that the question "what is being" can only be answered by responding to the question "what is substance":

But before coming to this point, we must emphasize the great importance of the categories. They permit us to conceptually unify the whole of reality and all its aspects. Anything having a claim to be named a "being" will be included in one of the categories.

Again, and consequently, the categories furnish all the aspects under which reality and the modes of reality can be conceived and exist: we can conceive things in their substance, in their quality, in their magnitude, length, quantity, in their various relations, actions, passions, in their time and place and not in any other way.

Also from this viewpoint, however, the absolute priority of substance emerges: a thing is known fundamentally only when its substance is known i.e. what it is: the other categories give, hence, only a complementary knowledge which, no matter how important, is always non-essential.

These conceptions will be more evident from an examination of substance.

**3. The concept of substance.**

Now for the central question of Aristotelian metaphysics: what is substance?

Aristotle does not answer in a univocal way but this is
not strange, nor does it imply contradiction. Substance can be understood as having three diverse but related meanings: as form, as matter, as the composite (that is, as the unity of form and matter).

Substance means: 1) form or essence (οὐσία), 2) matter (ὕλη), 3) the composite (σύνολον).

Let us try to understand this triple determination of the notion of substance. 1) Substance is, primarily, form. Form (εἶδος, μορφή) according to Aristotle, is not superficial like the shape of a thing, but is the intrinsic nature, the what-it-is (τὸ ἔστι) or the intrinsic essence (τὸ ἔστιν). The form or essence of man, for example, is his soul i.e. that which makes him to be a living and rational being; the form or nature or animal is the sensitive soul and of plants the vegetative soul. Again, the essence of circle is that which makes it that given figure with these particular features; the same thing can be said for the square and its characteristics.

When we define things, it is their essence which we grasp; thus, the things conceivable is ultimately based only on their essence. 2) In addition, if a rational soul does not inform a body, there would not be a human being and if a sensitive soul does not inform a matter, we would not have an animal, and, again, if a vegetative soul does not inform a matter, we would have no plants. Thus it is—and the result is even more evident—for all the productions of artistic activity: if the essence or form of table were not realized in the wood, it would not be anything concrete. The same thing can be repeated for every other case. In this sense, even the matter is fundamental in the constitution of things, and even more so, within certain limits, can it be said of substance. Thales and the Naturalists i.e. the pre-Socratics believe that they could point out primordial matter as the true substance of things, because from it everything comes and into it all is dissolved. It is clear, hence, that this point of view is in error: without form, matter is simply indeterminate. Hence, matter is substance only in the sense that it constitutes an aspect of sensible things from which it is impossible to preclude, without eliminating the things themselves. 3) On the basis of what we have already said, the third signification is also clarified. The composite is the concrete union of form and matter.
All concrete things are simply composites of matter and form.

In this way, all sensible things, without exception, can be viewed in terms of their form, matter, and composition; and "substance" is ascribed on the bases previously discussed, both to form and matter and the composite.

But this problem can be taken in another way, that we will carefully examine, in order to further clarify what was said above.

4. The defining characteristics of the concept of substance

The attribution of substance to form, we have said, is on diverse bases than its attribution to the composite and the matter; we will see, now, what are these bases in function of which something can legitimately claim to be a substance.

For Aristotle the defining characteristics of substance are four in number, as follows. In the first place, substance must not inhere in another nor be predicable of another, but it is the subject of the inherence of others and of the predication of all the other modes of being. Substance, secondly, must be an independent entity, existing of itself (\(\chiwri\)\(s\)\(tov\)\(\tau\)\(c\)). In the third place, it must be a determined something (\(\tau\)\(o\)\(de\)\(\tau\)\(i\)): it cannot be, therefore, a general quality nor anything universal. Substance, finally, must be something intrinsically unified (\(\epsilon\nu\)\(\tau\)\(c\)) and not a multiplicity or a mere aggregate of parts.

The characteristics of substance are:

1) The substrate of the inherence of all the other modes of being and which does not itself inhere in another (\(\tau\)\(o\)\(\mu\)\(\nu\)\(k\)\(\Theta\)\(u\)\(p\)\(o\)\(k\)\(l\)\(e\)\(n\)\(o\)\(u\)\(\kappa\)\(l\)\(\alpha\)\(\kappa\)\)\(\Theta\)\(o\)\(u\)\(\tau\)\(\alpha\)\(\kappa\)\(l\)\(\alpha\)\(\kappa\).

2) If is something existing independently and through itself (\(\chiwri\)\(s\)\(tov\)\(\tau\)\(c\)).

3) It is something determined (\(\tau\)\(o\)\(de\)\(\tau\)\(c\)).

4) It has intrinsic unity (\(\epsilon\nu\)\(\tau\)\(c\)).

Now let us re-examine and compare the matter, the form and the composite with these characteristics in order to determine to which of them these characteristics properly belong.

Matter undoubtedly possesses the first of these characteristics: it does not inhere in another nor is it predicated of another: everything is predicated and inhere in it: form itself in a certain sense is predicated of the matter. But
it does not possess any of the other three characteristics: 1) it does not exist independently i.e. through itself (matter does not exist without form); 2) it is not "something determined" (thus it can only change in virtue of the form); 3) it is not, consequently, something unitary (unity is derived, once again, from form).

We can say, therefore, that the matter is substance only in an equivocal sense; Aristotle, in certain cases, has even said that matter is not substance, in the sense that the matter is not such except on the weakest title (it possesses only one of the four characteristics proper to substance).

The form and the composite, even if in a non-identical manner, have all four of the characteristics of substantiality.

The form 1) does not have its being in another and is not predicated of another (it is true that the form inheres in a matter and is predicated of a matter but in a totally exceptional sense; to inhere in the matter as that which informs the matter and has more being—as we will see—than the matter; matter depends on the form and not vice versa); 2) form can exist independently from the matter and through itself, in the sense already mentioned: a) it is the form that gives being to the matter and not vice versa; b) there are substances which are pure forms without matter; 3) form is something determined—as Aristotle repeatedly says—as it is essence, that is, insofar as it is that which makes things to be what they are and not another; 4) it is finally, a unity par excellence because it is the principle or cause that gives unity to that which it informs.

The composite possesses all the afore-mentioned characteristics—because it is at the same time both matter and form. The composite, that is, the concrete individual thing, 1) is the substrate for the inherence of all accidental determinations; 2) it is that which exists through itself par excellence; 3) it is something determined in the most concrete sense; 4) it is an intrinsic unity, in the sense that the material parts are profoundly unified by the form.

Between the form and the composite, however, there is need for a further distinction. Aristotle, in certain passages, seems to consider the composite as substance in the strongest sense of the term; in other texts, on the contrary, he seems to consider the form such. There is no question here of oscillation nor of contradiction.

In fact, according to the point of view from which the
texts are considered, one can respond in the first or second way.

From the empirical viewpoint it is clear that the composite or the individual seems to be substance par excellence; it is not so, from the speculative or theoretical viewpoint. In the Metaphysics, Aristotle has clearly emphasized the form and has pointed it out as being the most profound sense of substance.

This is confirmed, on the other hand, if we consider that the composite can not define substance as such: if it were so, nothing would be substance except the composite and thus God would not be substance. The form, on the contrary, is truly said to be substance as such: God is pure form: as we will see, when we consider the unmoved Movers of the heavens; while sensible substances are forms existing united to matter. Hence, form is substance par excellence.

So, in conclusion, we can say that in this way the concept of being is fully determined. Being in its primary signification is substance, substance is in a secondary sense, matter, in another sense it is the composite and in its proper sense, it is form: being is hence, the matter; being in another way is the composite, and being, in the primary sense, is the form. Aristotle has also defined form as the "cause of being" and insofar as he said it, the reason is clear; the form, being the "cause of being", is thus being in the highest grade (Bk.7,17).

Concerning the other meanings of being we have already spoken above.
The Four Causes and Act and Potency

1. The analysis of the four causes.

Metaphysics, as we have said, in one of its fundamental dimensions, is an inquiry into the primary causes. We must look now into the nature and number of the causes.

Aristotle in the first and second books of the Metaphysics in particular as well as in the first book of the Physics has stated clearly that the causes are necessarily finite in number, has also established that they are reduced to the following four: 1) the substantial or formal cause; 2) the material cause; 3) the efficient cause; 4) the final cause. The causes are thus:

1) substantial or formal cause
2) material cause
3) efficient cause
4) final cause

The first two causes have already been treated in the preceding section: they are the matter and the form which structure things (remember that "cause" and "principle", for Aristotle, signify that which conditions and structures). But are not the matter and the form sufficient to explain things? Seen from one point of view they do but from another they do not. If things are considered statically, so to speak, matter and form are enough; if, on the contrary, things are considered dynamically, that is, in their development, in their becoming, in their production and in their corruption they are not sufficient. It is clear, if considered statically, that matter and form explain things; but, if we think of the problem in this way: "why was this thing born", "who has generated it", "why does it grow and develop", then these other reasons and causes come into focus: the father who generated the child, and the end to which the child develops. Let us examine briefly, each one of the four causes that we have mentioned.

1) The formal or substantial cause is--as we have said--the essence or form of the thing: the soul for animals, the given "relations" for different geometrical figures, the particular "structure" of different objects of art.

2) The material cause is the that out of which a thing is made: for example, the matter in animals is found in the flesh and bones; the matter of the brazen sphere, is the bronze; in the gold cup, it is the gold; in the wooden statue, it is wood; in the building, it is bricks and mortar.
3) The efficient cause is that from which a change in a thing arises: for example, the father is the efficient cause of the son, the will is the cause of the various deliberative actions of human beings, the kick of the ball is the efficient cause of this movement.

4) The final cause constitutes the end or aim of the action; it is that in view of which or in function of which (τὸ οὗ ἐνέκα, id cuius gratia fit) everything is or becomes; and this, says Aristotle, is the good of each thing.

Often enough, the formal and final cause are identical, in fact they are fundamentally distinguished only by different perspectives from which they are regarded: for example, the formal cause of a man is—we know—his essence, the final cause of man is this same essence, seen however as the term or goal to which perfection the man tends in his development. Again, the formal cause of the bed is its structure, the final cause is that same structure regarded as the goal of the producer who constructs it or (in a less proper sense), viewed as that which is useful to something. The moving cause itself, in addition, Aristotle says, must be the same as the form or essence of the thing produced: man generates man, a horse generates a horse, the constructor insofar as he possesses in his mind the form of house to be realized generates the construction (although in this case, to speak strictly, would be to say that the house generates the house).

Hence it is clear that the causes which are important are the formal, and the material but above all the formal cause. We know already that at the end of his inquiry into substance, Aristotle said that form is the "cause of the matter" and "the cause of being". The other causes cannot tolerate being "absorbed" in a certain way entirely into the first; matter is absolutely irreducible to form, while the final and efficient causes are reduced to form only in a certain sense: becoming, says, Aristotle, is explained only by maintaining the fourfold distinction.

But the four causes are sufficient to explain the becoming of things and the generation and corruption of substances in their totality. The world presents a harmony of constant succession and alternation, generation and corruption and in general, of change. Then what is the cause of the harmony or order, of this constancy and continuity?

Aristotle attempts to reply in this way: the sun is the cause of generation and corruption travelling around in an "oblique orbit", advancing and retiring rhythmically and in
in a constant interval of time, producing the cycle of gen-
erations and corruptions. The constancy and harmony with
which the generation and corruption and movements of things
are produced is caused by the action of the primary heaven
or primary mobile, which has perfectly uniform motion. Beyond
then, the four causes, the sun, the oblique orbit and the
primary mobile, there is that which is "first in the whole
of being, moving all things", that is, the unmoved Mover or
God. But, of this, we will speak at length further on and
in the notes to the text of the Metaphysics.

Then, the causes of things are: a) the four proximate
causes; b) the motion of the sun and the heavens; c) God.

2. The doctrine of act and potency.

The doctrines of which we have spoken above, clearly be-
long with the two concepts that are of the greatest impor-
tance in the structure of the Aristotelian philosophy. Aris-
totle has discovered, in fact, that being in all of its fund-
amental significations (i.e. according to the "schema of the
categories") has two diverse but related modes of being.

Let us take for example the marble which the sculptor has
roughed out and in which the figure of Hermes is outlined:
now, one can certainly say that this marble is already Her-
mes, but one ought to say that it is Hermes in potency; Her-
mes exists actually at the moment when the marble is perfect-
ly chiseled and completed. We can say analogically of a par-
ticular piece of wood cut and planed which is then to be
nailed in order to form a table that: it is a table in pot-
ency; it will be a table in act or actually a table when
the work is completely finished. The same can be said for
living things both animal and vegetable: the semen, when it
has fecundated the ova and when it is found in an approp-
irate place, is the animal in potency; it will be an animal in
act when it develops and is realized; these kernels of corn
are in potency young corn plants, when they are planted in
earth and these young green plants are ears of corn in pot-
ency and the ground kernels that will be baked in the oven
are bread in potency etc..

The previous examples all refer to natural substances
and objects of the arts: but insofar as it is said, it can
be and ought to be extended to all the categories. There is
a being in potency and a being in act according to quality;
a man can be cultured in potency (while learning) but act-
ually cultured (when he has learned); medical in potency and
in act and so on. There is a being in potency and in act
according to quantity: if you are potentially tall, it
follows that you will be in act. Thus it can be said for all
the rest—relation, action, passion, place and time.

In sum: the whole of being, in all its dimensions, is
susceptible of the two-fold equivocity of which we have spo­
k en. It is a very important discovery, because it permits us
to understand many things which would otherwise remain un­
explained. Let us take, for example, a doctor who is not at
a given moment exercising his art: do we say that he, beca­
use of this, has lost the art itself and has ceased to be a
doctor. This is Aristotle's reply: he possesses it in pot­
tency and indeed because he possesses it potentially, he can
exercise it in act when he wishes. Thus it can be said for
all the arts: when they cease exercising them in act, the
art does not cease to exist as such but is "in potency".
Other examples can be used from other areas; when I close
my eyes, my vision ceases to be exercised in act but it
does not cease to be, it is potential or the potential
capacity to see; thus for all the natural capacities acqu­
ired by men or animals in general.

3. Relations between both act and potency and matter and
form.

Perhaps the most important significance of the doctrine
of potency and act is that which determines, in the light
of metaphysics, its relations to matter and form. The matter
is a potentiality, that is, the capacity of being form: mat­
ter as we have seen, is the bronze with respect to the form
of the statue or the wood with respect to the form of diver­
se objects into which it can be made. The form, on the con­
rary, signifies act or actuality of the matter. The com­
site of matter and form will be, if we consider it as such,
chiefly act; if we consider it according to its form it is
undoubtedly act; and if we consider it in its materiality,
it will be a mixture of potency and act. Everything that
has matter always as such, has more or less potentiality.
Beings which do not have matter will be consequently, abso­
lutely devoid of potentiality and will be pure act.

Act is also called by Aristotle entelechy (at times the­
re seems to be a slight difference in the significance of
the two terms, but, most of the time, especially in the
Metaphysics they are used synonymously); act and entelechy
is said to be, realization, perfection, actuality. The soul
is, hence, insofar as it is the essence or form of the body,
the entelechy of the body and in general, all the forms of
the diverse sensible substances are act and entelechy. God
is pure act and entelechy.
Act, Aristotle says, has absolute "priority" and superiority over potency; potency, in fact, is always in function of act and is conditioned by act, and it can not be known, as such, unless it is reduced or related to the act of which it is the potency. Besides form which is reduced to act, the other causes are also reduced to act. The final cause is act which necessarily follows from the identification of formal cause and final cause, about which we spoke above; the efficient cause must also be act: only an actual man can generate another man, only an actual animal can generate another animal, and so on.

We can also confirm the affirmations with which we concluded the preceding section in this new way: that being belongs in a minimal way to matter, in a maximum way to form. The matter, in fact, is potentiality, the form, on the contrary, is actuality and entelechy. The form has, hence, a priority with respect to matter and also with respect to the composite which it conditions, in the measure in which act has priority to potency.
The Existence and Nature of Supersensible Substance (the unmoved Mover)

1. The three kinds of existing substances.

We have seen the nature and defining characteristics of substance. This, however, does not yet resolve the problem about which we have spoken before in the radical sense. The problem what is substance which Aristotle proposed and resolved is done only in function of the solution of a more fundamental problem: what substances are there? Are there only sensible substances or are there also supersensible substances? This is equivalent to asking: are there only sensible beings or are there also supersensible beings?

Aristotle has inquired and replied with precision, and by that fact has erected the basis of a scientific or rational theology.

According to Aristotle, there are three kinds of substances hierarchically ordered. Two are of a sensible nature: the first is constituted by sensible substances which are born and perish, the second is constituted of sensible substances which are incorruptible. These last are nothing other than the heavenly bodies, the planets, and the stars, which according to Aristotle are incorruptible, because they are made of incorruptible matter—the Aether or fifth nature.

The perishable sensible substances underly all kinds of change: generation and corruption, augmentation and diminution, alteration, local motion. Celestial sensible substances underly only one type of movement: local movement which is circular. It, hence, is neither generated nor corrupted, it neither increases nor decreases nor suffers alteration: it is eternal and eternally in motion.

Above all of these, there is, then, immobile eternal substance which transcends the sensible: the unmoved Mover, that is, God. There are three kinds of substances:

1) sensible corruptible substances
2) sensible incorruptible substances
3) supersensible, immobile and eternal substances

The first two kinds of substances are constituted of matter and form: of the four elements (earth, water, air and fire) which are sensible and perishable; of pure aether, as we said, which is imperishable; supersensible substance is, on the contrary, absolutely pure form, devoid of matter.
Physics and astronomy are concerned with the first two kinds of substances: the third kind of substance constitutes the special subject of metaphysics.

Therefore we must proceed and examine the demonstration by Aristotle of the exitence of supersensible substance, and what its nature is and finally its relation to the world.

We will take up these problems also in an analytic mode in the notes, insofar as they form the special object of the twelfth book.

2. The demonstration of the existence of supersensible substance.

In the twelfth book of the Metaphysics, the existence of the supersensible substance is demonstrated in the following way.

Substances are the fundamental realities or the primary realities, in the sense that all the other ways of being depend on substance. If, therefore, all substances were corruptible, nothing incorruptible would exist. But, says Aristotle, movement and time are certainly incorruptible. Time is neither generated nor corrupted, in fact, prior to the coming into being of time, there must have been a "before" and after the destruction of time, an "after". Now, "before" and "after" are nothing other than time; in other words: time exists always, before and after any supposed beginning or ending of time; therefore, time is eternal. The same reasoning is valid for movement, because according to Aristotle time is nothing other than a determination of movement; hence, there is no time without movement, because the eternality of the first demands the eternality of the second.

But under what conditions can an eternal movement (or time) exist? The Stagirite answers, fundamentally the principles by which he establishes the conditions of movement are taken up in Book VIII of the Physics: only if there is a primary principle which is its cause.

And what must this principle be, in order to be the "cause" of it? The principle must, in the first place, be eternal; only on this condition, in fact, could it cause an eternal motion.

It must, in the second place, be immobile; only the immobile, in fact, is the cause of the mobile. In the eighth book of the Physics, Aristotle has demonstrated this point with great care. Everything moved is moved by another; this other,
if it is also moved, it is moved by still another. A rock, for example, is moved by another, a stick; the stick in turn is moved by a hand, the hand by a man. In summary, in order to explain any movement, it is necessary to refer to a self-moving principle, to what is per se unmoved, at least unmoved in respect to what is moved; it would be absurd, in fact, to think that one could rise from mover to mover ad infinitum because a process of this type could not have taken place to infinity. Now, if this is so, not only must there be immobile principles which can explain individual movements but, more strongly, there must be an absolutely primary principle which is absolutely immobile, which explains the eternal motions of celestial bodies. The primary principle must be, in the third place, absolutely devoid of potentiality, that is, it must be pure act; if, in fact, it had potentiality, there would not even be any actual motion; but that would be absurd, in that case, there would not be any eternal movement.

In conclusion: because there is eternal movement, it is necessary that there also be a principle that produces it and it is also necessary that this principle be eternal, immobile, and pure act. This is the unmoved Mover, that is, the supersensible substance of which we have been in search.

3. The causality of the prime Mover.

But how does the primary Mover "move" while remaining absolutely immobile? Is there something which we know which "moves" without being moved?

Aristotle points out an example in his reply of just such a thing, the object of desire or of the intelligence. The object of desire is that which is noble or good; now, the noble or the good attracts the will of man without itself moving in any way.

Of this type of causality is the causality of the prime Mover or the primary substance: it moves as the object of love by attracting the beloved. It is not a question, therefore, of efficient causality, of the type, let us say, exercised by my hand in moving a ball or of the sculptor in cutting out the marble and so on. God attracts and attracts as an object of love, that is, as an end; the causality of the immobile Mover, therefore, is final causality. The Aristotelian God is not the creator of the world, hence he does not make things out of nothing. The world, in the conception of the Stagirite, is eternal, thus as it is, and will continue to be so eternally: God moves it and will move it eternally in the manner aforementioned.
4. The nature of God.

This principle on which "the heavens and nature depends" is life. And its life is the most excellent: what is possible for us for only a short time. It is a life of pure thinking, a life of contemplative activity.

"If therefore, in this happy condition in which we find ourselves occasionally, god is found permanently and it is marvelous; and if he is found in a superior condition, more reason to marvel. And this condition he is actually found. And he is also life: the activity of thinking is indeed life and he is that activity. It is an activity which exists for itself, it is the best life and eternal. Let us say indeed that god is living eternal and best; so that to god belongs a life permanent continual and eternal: this is, therefore, god." (chpt.7)(Ross trans.)

But what does God think about? God thinks the best thing; but the most excellent thing is God himself. God, therefore, thinking himself, is a contemplative activity of himself, is a"thinking of thinking".

"The thinking which exists for itself"--writes Aristotle in chapter VII--has as its object that which is of itself most excellent, and thinking which is such in the highest grade has for its object that which is excellent in the highest way. The intelligence thinks itself, by taking the place of the intelligible:in fact, it becomes intelligible by grasping and thinking itself, so that the intelligence and the intelligible are identical". And in chapter IX, he writes again: "The divine intelligence is the only thing with its own thinking as its object"; divine intelligence, "thinks itself for all eternity".

Let us summarize: the divine is eternal, immobile, pure act, devoid of potentiality and matter, hence it does not have parts nor magnitude, it is spiritual life, a thinking on thinking.

5. The unicity of God and the plurality of the unmoved Movers.

Aristotle, therefore, believed that God was not sufficient alone, to move all the "spheres" which constitute the the heavens. God directly moves the primary mobile--the heaven of the fixed stars--; but between this sphere and the Earth there are many concentric spheres, each smaller and enclosed inside the other. What moves all these spheres? There are two possible responses: either they are moved...
mechanically, through a motion transmitted by the first heaven, and then transmitted from one to the other successively; or from other supersensible immobile and eternal substances, which move in an analogous way to the primary mover. The latter or second is the Aristotelian solution.

The movements of the spheres, in act, are ordered in various ways to the goal of producing the movement of the planets: the mechanical explanation would be, hence, inadequate; because of this, Aristotle introduces the multiplicity of movers, which I think like supersensible substances are capable of moving as final causes, in a way analogous to God.

Fundamentally, then, the calculations of the astronomy of his time and with the addition of some necessary corrections—which we will see in the commentary on chapter VIII—Aristotle established in the number of fifty-five the limits of the spheres (admitting, hence, a possible limit to forty-seven).

If such are number of the spheres, then such are the number of the immobile and eternal substances which produce their movements. God moves the first heaven or sphere and fifty-five supersensible substances move the other fifty-five spheres.

Aristotle, with this affirmation has he perhaps fallen into a species of polytheism, or, in any case into a form of thought that gives rise to polytheism?

In spite of the obscurity in which Aristotle has left this point of his doctrine, we certainly ought to respond. In chapter VIII itself, where the theory we have been discussing is espoused, Aristotle confirms the unicity of the primary immobile Movers—this alone is God--;and from this unicity of God he deduces the unicity of the world. And book twelve closes with a solemn affirmation that things do not desire to be badly governed by a multiplicity of principles, sealed, almost by giving greater solemnity to it, with the significant verse of Homer: "the government of many is not good, one alone should be governor."

It is clear, then, that the other immobile substances which move each of the celestial spheres, are hierarchically inferior to the absolute prime Mover; the hierarchy is itself given by the order of the spheres which move the stars; in fact, in chapter VIII it says: "That the movers are substances, then, and that one of these is first and another second, according to the same order as the movements of the stars"(1073b1-2).
Aristotle did not explain precisely the relation between God and these substances and between these substances and the spheres they move.

The medievals will transform these substances into the celebrated angelic moving intelligences.

6. God and the world.

God thinks and contemplates himself. But does God know the world and the men who are in the world?

Aristotle has not furnished a clear solution to this problem and he seems inclined to the negative. There is a knowledge of the world and the universal principles of the world which is certainly possessed by the Aristotelian God. The first book of the Metaphysics explicitly says that anyone who fully possesses the knowledge of the causes and the supreme principles, is properly God. God therefore only knows the world in its highest principles. On the other hand, if God is the supreme principle itself, it is clear that, as such, he must also know it: he will know it because he is the object of love and desire of the whole universe. It is also clear that individuals, insofar as they are limited, deficient and imperfect, in the eyes of Aristotle, would be unknown, for knowledge of them would be a diminution of God. Empirical individuals, according to Aristotle, are unworthy of divine thought.

Another limitation of the Aristotelian God, which has the same foundation as the preceding one, consists in the fact that he is the object of love but he does not love, or, rather, he loves only himself: individuals as a matter of fact are not the objects of divine love: God does not submit to men at least not any single man. Every man, as also every thing, tends in various ways toward God, but God does not know any of these individuals, whether men or things.

After having achieved this sublime height, Aristotle could not maintain it; he wavered and descended; even great genius, Dante would write, fails to have the power; perhaps it belongs to no human genius, without the help of Revelation to push forward much beyond this point.
The Immobile Mover

Book XII, the Metaphysics
Chapter I

The object of metaphysics and the three substances

Our inquiry is concerned with substance: in fact, it is of substances that the principles and causes are sought.

And, in reality, if the universe is considered as a whole, substance constitutes the principal part; and if it is considered according to the series of the categories, on that account, substance would constitute primary being, then comes quality, next quantity.

Moreover, speaking in a rigorous sense, these latter ones are not even substances, but, on the contrary, are qualifications and movements of substance or else they are in the same way that the "not-white" and the "not-right" are: in fact, we say that these also are, as for example when we say

On metaphysics as a "study of substance", consult the Introduction p.5.

To study substance means to inquire into the causes and principles of substance, i.e. to determine what are the foundations and structure of substances. In fact, according to Aristotle, in general, we possess the complete knowledge of everything and anything only when we know the constitutive causes. (Cf. Introduction pp.1-3)

Aristotle will proceed now, to show the absolute priority of substance, with the aim of demonstrating the affirmation made above (the object of the metaphysical inquiry is nothing but substance). He will do it in four arguments. The priority of substance is more accurately and fully demonstrated in the Metaphysics 7,1).

The first stage of the first argument--if the universe is considered as a whole, it is constituted by form and matter, then substance (in the sense of form) is the constitutive or principal part. Form, in fact, is "prior" and more being than matter (Cf. Intro. pp.13-15). I have followed, on this point, the interpretation of Bonitz (II, p.469), which is singularly persuasive.

The second stage of the first argument. Rather than considering the universe as a whole constituted by form and matter, the universe can also be regarded from the viewpoint of a series that is determined by the categories (Cf. Intro. pp.12-13). Well then, from this point of view also substance is first, then comes quality and quantity and the other categories. We know that the categories constitute the principal meanings of being, but that they all presuppose, as their condition, the being of substance.
that these also are, as, for example, when we say "this is not white".\(^5\)

In addition, not one of the other\(^6\) categories has a mode of being independently of substance.

The ancient philosophers also, in fact,\(^7\) show it: they sought the principles, elements and causes of substance. The contemporary philosophers instead posit universals as substances (the genera are, in fact, universals which they affirm to be principles and substances, on the basis of their inquiry which is of a purely rational character). On the contrary, the early thinkers identify individual things as substances, as, for example, fire and earth, and not

\(^5\)The second argument—speaking rigorously, the categories are not even substances because they do not have being properly. The being of all the categories which are not substance have their being only in reference to the being of the first category, substance. Quality, for example, does not have being except in and through substance (so much so that if you destroy the substance, you by that fact destroy the quality). The same thing is true of all the other categories they are only insofar as they are quantities of, relations of, the where and the when of, or movements (actions or passions of) substances. The two examples that Aristotle chose are extreme: the "not-white" and "not-correct" are not simply of themselves but they are only as negations of "white" and "correct": therefore, they presuppose the white thing and the correct thing and they are only in function of them. The remaining categories in this respect are all the same i.e. in relation to substance, they all presuppose and depend substantially on it. The substance, therefore, has an absolutely priority.

\(^6\)The third argument. Substance can exist and can be thought independently of the accidents whereas the other categories cannot be thus: of itself and independently of substance they can neither be nor be thought. The priority of substance is thus confirmed again in this way.

\(^7\)The fourth argument. The ancient philosophers (the Naturalists) themselves witness to the fact that their speculations had as the object of metaphysical inquiry, substance and that substance has priority over everything. They indeed inquired into the principles, causes and elements of substance.

\(^8\)The Platonists, in general.

\(^9\)Still in spite of this radical divergence, the Platonists also talk of substance.
There are three substances.

The first is sensible -- and, of this kind is substance, there is an eternal kind, and a second which is corruptible, which all admit (as, we agree, the trees and the animals). Of this substance it is necessary to understand what are the elements (can they be reduced to only one, or are they more than one).

The other substance, on the contrary, is immovable; and this, some philosophers assert is transcendent: certain thinkers distinguish them further into two types, others reduce it to one identical nature -- the Ideas -- and mathematical entities; again others, among the latter assert only mathematical entities.

Fire and earth are particular elements; the "body" is already, on the contrary, a common concept of the two together, hence it can no longer be particular but universal. The first and not the second, the Naturalists make into the principle of things.

Finally, Aristotle has shown that metaphysics must be a science of substance, because substance is prior to everything. Now he moves on to distinguish the kinds of substance and assigns these diverse kinds to diverse sciences, by differentiating, in such a way, that to metaphysics, strictly speaking, belongs the inquiry concerning supersensible substance. The kinds of substance are: two, physical and one, supersensible: the first two are concerned specifically with two branches of physics and the third with metaphysics.

Eternal sensible substance is composed of the heavens and the celestial bodies (cf. Intro. pp. 23-24): it is sensible because it is visible and perceptible; it is eternal because it is made from incorruptible matter (aether, the fifth essence).

All things from the sublunary world are sensible and corruptible substances; men, plants, animals and so on. The elements, the principles and the causes of these substances are studied in chapters 2, 3, 4, and 5.

The third substance is supersensible: while the first two are subject to change, this third is immobile. The first two are admitted by everyone, the third is subject to various arguments and different interpretations. The chief task of the Aristotelian metaphysics will be, indeed, to verify if there is such a substance and its nature.

Plato

The Ideas and Numbers.
The first of the two substances constitute the object of physics (in fact, they involve movement\(^\text{18}\)); the third, on the contrary, is the object of another science, given that there is no principle common to them and to the other two.\(^\text{19}\)

\footnotesize{Xenocrates 17 Speusippus}

\(^{16}\) On the concept of the "physics", see the Intro. pp. 7–8. The corruptible substance is properly the object of physics, while eternal sensible substance is the object of astronomy.

\(^{19}\) The supersensible substances do not have anything in common with physical substances and will be, on the contrary, the object of the metaphysical inquiry as we have said (Cf. Metaph. 6, 1, passim).
Chapter II

The principles of change with special consideration to matter

Sensible substance is subject to change. Now, if change occurs between opposites or between the intermediate states to opposites—not between the opposites in general (even the voice, in fact, is not white), but only between the contraries—it is necessary that there be a substrate which changes from one contrary to the other: the contraries themselves do not change.

The second chapter begins—according to the divisions that have been handed down—in the next line beginning with (Besides...there is something that persists...). But the preceding sentence does not strictly belong to the previous argument, it belongs in the second chapter. We have therefore place it in the second chapter.

In chapters II, III, IV, V Aristotle will give a summary of his doctrine of substance and the principles of sensible things, dependent in various ways on the seventh and eighth books of the Metaphysics as well as the Physics. The style of writing in this chapter is excessively concise and somewhat disconnected and dense. In a word, the style of lecture notes, full of allusions, ready to be filled by the actual lecturer. This fact will make it necessary to proceed almost phrase by phrase with commentary.

Being subject to change is a defining characteristic of sensible substance. Change is being understood in its wide sense, embracing all the meanings distinguished below. (n. 26).

Change always occurs between the contraries, e.g., between great and small, hot and cold; and all their intermediate degrees: from indisposed (intermediate between sickness and health) to health; from yellow (intermediate between black and white) to black, etc..

Aristotle here correctly distinguishes between generic opposition and the opposition of contrariety. Generic opposition can be established between any pair of terms which can be generically opposed: for example, speech and non-great or speech and non-white. But change belongs only to the opposition of contrariety because it alone has an underlying unity, that of the genus, e.g., white and black (which have underlying unity in the genus of color and the category of quality) great and small (which have an underlying unity in the genus and the category of quantity).

When, for example, something changes from white to bla-
Besides, in the process of change there is something that persists while the contrary does not persist; hence, there is a third term in addition to the two contraries: the matter.

Now if, there are four kinds of change: (a) according to the category of essence, (b) according to the category of quality, (c) according to the category of quantity, (d) according to the category of place—generation and corruption are par excellence change according to substance, augmentation and diminution change according to quantity, alteration change according to quality, local motion change according to place—changes must occur between contraries in the limits of each of these four categories. It is necessary, then, that the matter change which is in

ck, there is no change in the contraries as such: white does not become black, but the object or the substrate which changes by passing from one contrary to the other. You may, for example, go from ignorance to wisdom but ignorance itself does not become wisdom.

In a change, the contraries disappear one at a time, by leaving the situation to the other: when something becomes white, black disappears and when something becomes black, the previous white disappears. Therefore, on the contrary, what remains throughout the change is precisely the third term besides the contraries, i.e. the matter.

Aristotle distinguishes four kinds of change: 1) change according to substance i.e. generation and corruption; 2) change according to quality i.e. alteration; 3) change according to quantity i.e. addition and diminution; 4) change according to place i.e. local motion. Aristotle distinguishes the last three categories of change by the name of movement; but he often speaks of generation and corruption as movements. Here is a schema which represents the Aristotelian distinctions accurately:

Changes are distinguished into:

- generation and corruption (1)
- movement
  - (2) alteration
  - (3) addition and diminution
  - (4) local motion

(1) Generation and corruption occur only in relation to substances and are the birth and death of living beings; here, the contraries of the change are the form or essence and its privation.

(2) Alteration is a change which occurs only in relation to the category of quality and between appropriate pairs of contraries, e.g. when something sweet becomes sour or vice versa, when something beautiful becomes ugly or vice versa.
potency to both contraries. And since there are two modes of being, everything changes by passing from being in potency to being in act, for example, from white in potency to white in act; the same applies to addition and diminution). So that, not only can it be said that, in a certain sense, everything is derived from non-being, but also, that everything is derived from being; obviously from being in potency and from non-being in act.

(3) Addition or diminution is a change which occurs only in relation to the category of quantity and between appropriate pairs of contraries, for example, when something small becomes large or vice versa and when something heavy becomes light or vice versa.

(4) Local motion is a change which occurs only according to the category of place between appropriate pairs of contraries, for example, to move from here to there. Accordingly, the remaining categories do not involve motion and passion because they are already movements of themselves and it is inconceivable that there be a movement of a movement; nor according to the category of time because--as we will see--time objectively depends on motion and because the same argument would also apply; as well to the category of relation. There are, therefore, no other changes or movements other than those enumerated. (See, Physics 3 and 4).

Matter is in potency to the contraries in two ways, in the sense that it is the capacity to receive both the form and its privation that is a positive contrary or its negation.

Being in act and being in potency. For the explanation of the concept of act and potency, see the Intro. pp. 20-22.

All things which become, change by passing from potency to act. Now the potency is being in a certain sense and it is also non-being: it is not-being-in-act. In this way, it can be said that everything is derived from not-being, that is, from not-being-in-act; but it can also be said that everything is derived from being, that is, from being-in-potency. It is important to notice therefore that the non-being of potency is only a relative non-being (relative to act) and not an absolute non-being. Nothing comes from absolute non-being.
This is properly the significance of the "One" of Anaxagoras (this is a better expression than his other one "all things together"); the "mixture" of Empedocles and of Anaximander and also the affirmation of Democritus "all will be together": evidently in potency and not in act. With the result that these philosophers are perhaps quite close to the conception of matter.

All the things that change, therefore, have matter: but diverse according to each case; eternal things which are ungenerated but which have movement in place also have matter: a matter, however, which does not admit generation but only movement from one place to another.

The text is not that of the Ross translation. It is the traditional one and it agrees with the interpretation of Tricot (Cf. Vol. II, p. 646, n. 1). Aristotle found precedents of his own doctrine of matter and potency in the teachings of some of the philosophers of nature: in the "one" and "all things were together" of the homeomeres of Anaxagoras, in the "mixture" of the four elements of Empedocles and in the "unlimited" of Anaximander, and in the "all things were together" of the atoms of Democritus. This is not the place to discuss the historical accuracy of these views; it is clear, indeed, that Aristotle judged them from his own viewpoint. The "all together", the "mixture", and the amalgam of the "homeomeres," of the four "elements" and of the "atoms", all indicate "indetermination" and this is the defining characteristic of matter and potentiality.

The second instance of matter which is not subject to generation or corruption. Things subject to generation and corruption have matter, in the sense that they are subject to all the kinds of change. Sensible substances, which are incorruptible (the heavens), have, on the contrary, a matter which is only capable of local motion. It is important to realize that for Aristotle generation and corruption imply all the other changes or movements: if a thing is corrupting it necessarily is also altered in quality, in quantity and changes place. Thus, the thing subject to alteration and accretion and diminution is subject also to all the other types of change. Motion alone i.e. local motion does not imply the others.

This doctrine is very important and permits Aristotle to affirm incorruptibility, inalterability, and immobility of the heaven, as well as circular motion or rotation. (Cf. Met. VIII, c. 1 and IX, c. 8).

This kind of matter is the aether.
The question could be raised as to what kind of non-being is involved in generation; as a matter of fact, there are three kinds of non-being. But if something exist in potency, the generation, nonetheless, does not occur from any potency whatsoever, but rather, diverse things are generated from diverse potencies. It is not sufficient, hence, to

33 Aristotle takes up a question already treated at length (see note 28 above). The three kinds of non-being are: 1) non-being as potency, 2) non-being as a category, 3) non-being as false. This last meaning of non-being concerns only our thought and not in any way generation and corruption. Non-being in the second meaning is absolute non-being: non-substantial, non-qualitative, non-quantitative, and so on, but from non-being in an absolute sense, there is no generation.

34 To say that generation takes place from non-being in the sense of potency, does not mean, therefore, to say that it takes place from any potency in any substance whatever. Diverse things are generated from diverse potencies; from a seed, for example, no particular plant is derived, but only a particular plant from a particular seed to which the plant was in potency. Hence, the potency coincides with the matter, to say that diverse things are derived from diverse potencies is to say that diverse things are derived diverse matter. Some might object: but doesn't everything derive from prime matter? Aristotle replies; yes, but not directly, only through successive transformations. St. Thomas, in his commentary, clears up this point very well: "Yet even though something is generated from that kind of non-being which is being in potentiality, still a thing is not generated from every kind of non-being, but different things come from different matters. For everything capable of being generated has a definite matter from which it comes to be, because there must be a proportion between form and matter. For even though first matter is in potentiality to all forms, it nevertheless receives them in a certain order. For first of all it is in potency to the forms of the elements, and through the intermediary of these, insofar as they are mixed in different proportions, it is in potency to different forms. Hence not everything can come to be directly from everything else unless perhaps by being resolved into first matter." (p. 571, sec. 2438).
say that "all things were together"; rather things differ through the matter. Since otherwise would not an infinity of things be derived and not, on the contrary, only one? The intellect of Anaxagoras is one; so that, if matter were one, only that would have come to be in act, would be that whose matter was in potency.

There are, hence, three causes and three principles: two are constituted by a pair of contraries, of which one is the form, the other, the privation, the third is the matter.

If the principle stated above (see the preceding notes) is accepted, it is not correct to say, with Anaxagoras, that things are derived completely from an original confusion; (a confusion together of all the homeomeres); if it were so no explanation could be given of how from the same confusion, not one but a multiplicity of things are derived; Anaxagoras, instead of a single material, posits a single intellect (Nous). From a single material and from a single intellect, it is impossible to derive, in act, any single things.

With this critical analysis, perhaps not quite adequate, Aristotle only wanted to critically confirm the doctrine which he had stated previously: things do not differ solely through their form, but likewise through their matter, diverse things are derived from diverse matter.
Chapter III

The ingenerability of matter and form and the mode of existence of the form

After this, we must underline the fact that neither the matter nor the form (i.e. the ultimate principles) are generated. In fact, everything which changes is something, it changes from something, into something. That through which the change occurs is the proximate mover; that which changes is the matter; that to which the changes leads is the form. In fact, it would proceed to infinity, if not only the bronze-sphere were generated, but also the sphere and the bronze; there must be a stopping-point.

36. The second chapter treated matter as a necessary condition of becoming; the third chapter turns to a study of the formal cause or the form and its way of being. The chapter is more dense than the previous one. The teaching which Aristotle presents was discussed by him more completely and at length in the seventh book of the Metaphysics.

37. The ingenerability of matter and form is shown especially in chapter eight of Book seven. The argumentation that proves this assertion, is here only briefly outlined and it is evidently understood to be known to the hearers. We can summarize it as follows. Everything is generated by being derived from matter and from form (not only from a principle which functions as a moving-efficient cause); now, if the matter and the form were also generated, they would necessarily be derived from a prior matter and form. These then, would be subject to the same process in this way and would be going on to infinity. But the process to infinity, in this case, is inadmissible because it is contradictory, (the process to infinity does not have a last term, while the process of generation which we are trying to explain has a last term in the things themselves which we wish to explain); therefore, we must admit the ingenerability of matter and form.

Someone might object: but isn't the matter always derived, in some way, from something prior? For example, the wood of this table comes from a tree trunk, and it from the earth and so on. The answer is that Aristotle is referring not to the proximate particular matter nor to the form of the composite but rather to the ultimate matter and the ultimate form (τὰ έστιν τοῦ τιμόρου) following Alexander, p. 675, I do not agree with Ross' objection II, p. 354; cf. also Tricot II, p. 648, n. 2).
In addition, we must say that every substance is generated from another which has the same name (this applies to natural substances as well as to others). Substances are generated either through art, nature, casually or spontaneously. Art is a principle of generation in another, nature is instead a principle of generation in the thing itself.

The same conclusion can be produced with the following reasoning. Matter and form are "ultimate principles" of change; now, if these same principles of change themselves were to change and so on there would be principles of principles, on to infinity. But this would completely negate the fact that principles do exist. In a process to infinity there are no principles and if there are no principles then we can never arrive at any. In this way the reality of existing principles would be denied. Therefore, Aristotle asserts the ingenerability of matter and form, of the material and formal principles.

Having examined the ingenerability of matter and form, Aristotle then goes on to a consideration of the diverse aspects and characteristics of form.

In the first place, in the present paragraph, he recalls a point already treated in chapters VII and IX of Book Seven and which will be taken up again in chapter IV of this chapter. "Each entity comes into being out of something which shares its name". Here Aristotle is speaking about the (substantial)entity from which a thing is derived, understood as an efficient cause and he means this: the efficient cause is always a being that is a substance or form which is identical to the thing produced. This is valid for natural substances (a man can only be generated from another substance which has the same essence or form i.e. from another man; and so on, for the other animals and plants); this is valid then, also for artificial products: "the concrete house", as has been said, is not the product of man itself, but is from a man in so far as he is the constructor of the house, i.e. insofar as he possesses in his mind the essence or form of the house. Consequently speaking rigorously, it is the house (the form of the house) which is in the mind of the constructor, which produces the material house. The same thing goes for all the other cases: like health (the form existing in the mind of the doctor) which produces health and the recovery from sickness and so on.
The reference made in the preceding phrase to the two kinds of generation from natural things and from other things, now becomes clear with the systematic distinction, although the schema is elliptical, all the possible kinds of generation are to be found, according to the Stagirite, summarized in the following four:

1. through nature (ΦΥΣΙΟΛΟΓΙΑ)
2. through art (ΤΕΧΝΗ)
3. spontaneously (ΤΩ ΣΟΝΤΑΙΜΕΝ)
4. by chance (ΤΩ ΧΑΟΣ)

Natural generation differs from artificial productions for these reasons: nature possesses in itself and immediately the principle of generation, the art, on the contrary, is the principle in another and it is involved only medially through another term. Nature considered, for example, in a man or in an animal has in itself and immediately a principle of generation of another man or animal; on the other hand in the case of the construction of a house or in the healing of a sick person, the principle of the work is not in the material (in the case of the house), nor in the sickness (which must be cured) but in the constructor and doctor, hence the principle is in another i.e. the art is medially a principle. The other two kinds of generation, spontaneous and chance occur respectively in a generation in which the normal natural causes do not act (for example, in the generation of insects) and in the formation of things which come to be without the intervention of any causes that normally intervene in technical production (for example, if a piece of marble fell from a mountain and assumed the shape that normally is produced only through art). Now the cause of these two forms of generation is nothing other than the absence or privation of the causes that normally and regularly intervene to produce the other two kinds of generation. (Cf. Bonitz, II, p.355).

A question may arise as to whether or not the things that are produced by spontaneous generation and from a causal process are derived from beings having the same essence or form (Cf. preceding note). The answer is evidently no. But these are exceptions that confirm the rule (Cf. Ross, II, p.355).
There are three substances: the first is matter, which is something determined only in appearance (for everything is matter and substrate through contact and not through intimate natural union; the other is the nature of things, which is something determined and is a state to which generation tends as a final term; the third is derived from the union of these two, that is, the individual, for example, Socrates or Callias.

The "three substances", of which Aristotle speaks here are not the same as the "three substances" which are distinguished in chapter one and which we will be concerned with in chapter six. Those "three substances" are genera of substance: 1)sensible and corruptible substance, 2)sensible and eternal substance, the heavens, 3)immobile, eternal supersensible substance. Here in this chapter, the "three substances" indicate three significations of substance or three 'modes' of substance (an expression of Schwegler, IV, p. 241#5): 1) matter, 2) form, 3) the composite of matter and form (these three senses and their reciprocal relations have been dealt with in the Intro, pp. 13-15). Let us remember the most important of the three significations, according to Aristotle is the form, which is prior and more properly being than the composite or the matter. This is shown in particular in the course of the considerations found in book seven.

The first signification of substance is matter. This meaning is not primary but secondary because matter is not something determined (τὸ θέτε τι); Aristotle explains that if matter appears to be determined, it is only an appearance; as a matter of fact, the unity of matter is "apparent" (τὸ θεῖεν άθεῖε) (See, Ross, II, p. 353); in fact, its appearance is nothing other than parts in contact and not an essential or natural unity (See, on this argument Met. 7, 3; 8, 1).

The second signification of substance above is as form. Here rather than using the term "form" or "essence" Aristotle used the term nature (φύσις) in a sense absolutely identical with form. (This term, of course, has many meanings among which is that of essence, as, for example, when we ask: what is the nature of the difficulty? What kind of bread is that?). The form or essence or nature of a thing is contrary to the matter, "a determined something" (τὸ θέτε τι) because (as Bonitz correctly says) the matter is determined by the form: "Eadem forma appellatur τούτῳ quo-niam per formam materiam, ut certum quidpiam sit, definitur" (II, p. 477). This point is both important and fundamental because the matter and the composite are τὸ θέτε τι, but so also (from a certain viewpoint, that is by a better claim) is the form (See Met. 5, 8 and 8, 1, 1042a29). See Intro, pp. 18-20.
In some cases, the formal determination \(^{44}\) does not exist apart from the substantial composite, as, for example, the

The form, in addition, constitutes the state (\(\varepsilon \zeta \varphi \varsigma\)) to which generation tends as an end (\(\varepsilon \zeta \varsigma \eta \nu\)). We have already mentioned this identification of the form or formal cause and the final cause in the Introduction pp.18-20.

\(^{43}\)The third signification of substance is that of the composite (\(\sigma \nu \omicron \omicron \omicron \lambda \omicron \omicron\)) or the unity of matter and form, the individual (\(\tau \theta \kappa \theta \epsilon \kappa \alpha \sigma \tau \omicron \omicron\)). To say as many people do, that this meaning is the principal one for Aristotle, is inexact, at least on the basis of the texts in the Metaphysics. We have seen that the principal signification of substance is form, for the reasons we have explained previously; here we add that in Book Z, the form is said to be primary substance (\(\pi \rho \mu \tau \gamma \omicron \omicron \omicron \omicron\)). The objection to this, is that in On Categories, Aristotle called the individual, "primary substance" and the form "secondary substance". Is there a contradiction between the doctrine of the Categories and the Metaphysics? We reply: for us, i.e. on the basis of mere empirical considerations, the "primary substances" are the individuals (Socrates, Callias, you, your friend next to you); in itself, that is, on the basis of considerations of a rational or purely scientific nature, "primary substance" is form. In a metaphysical context—the highest rational science—it is therefore clear because "the substance par excellence" is said to be form. We will see, moreover, that if primary substance generally is form, primary substance in the absolute sense is the form that subsists of itself, without matter i.e. God and the other supersensible mover substances (Cf. the Introduction pp.23-24).

\(^{44}\)The text certainly says "\(\tau \delta \epsilon \tau\)" instead of \(\varepsilon \iota \varsigma \delta \varsigma\) (Cf. note 42): here the expression "formal determination" is used rather than "something determined" (which is the proper translation of \(\tau \delta \epsilon \tau\)), because the latter would not render the concept that Aristotle wants to express on this point.
form of a house in relation to the concrete house; if by form is meant the art of constructing the house of these forms, there is no generation nor corruption, and the form of house without matter and health and all those things relative to art are and are not, in some sense subject to generation and corruption, but—given also that the form can exist apart—it does so only in the case of natural substances. Plato, hence, was not speaking erroneously.

To admit that the form is substance does not mean, therefore, to affirm that there are forms (εἴδη or Ideas) existing separately as the Platonists say. These people say that the forms of things are separate from things and exist in themselves and through themselves. This is an absurd position according to Aristotle; it's like thinking that the form of a house exists separately in and through itself, different than this concrete house. On the contrary, it is obvious that the form of house exists solely in the singular house as informing or structuring it in a determinate way.

If by form of a house is meant the art of the constructor, that is, the form which is in the mind of the maker and which is totally one with the activity by which he produces the actual house, then, it is alright to say that the form exists separately from the concrete house. In that case, hence, the term is understood in the sense that is totally different than the Platonists speak of, and it remains wholly foreign to the scope of their thinking.

The form of things that are produced by art are neither generated nor corrupted: the immaterial form of a house and immaterial form of health, for example, exist when the constructor and the doctor think them and they cease to exist when they cease to think them; they do not exist in themselves but only in the intellect of the person thinking them.

Given that the form of an artefact exists as mentioned above (see notes 46 and 47), if however, some form exists in and through itself, separately from things, this form can not be the form of a natural substance.

Aristotle does not mean to agree completely with the Platonists. He argues in the following manner. It is clear that some artefacts do not exist as separate forms in and through themselves; hence, if ever there were to exist forms in that sense, these forms could not be forms of natural substances—as the Platonists would like to claim—and not as forms of artefacts as some of Plato's disciples would likewise claim. The observations that follow, hence, exclude this hypothesis: forms existing in and through themselves are forms of natural substances. A form existing apart and
when he said that there are as many forms as there are natural substances, admitting evidently that distinct forms of these things exist, as for example, fire, flesh and head; all these, in effect, are matter, and the matter of what is substance par excellence and what is more proximate.

The moving cause exists prior to its objects: the formal cause exists, on the contrary, together with its objects. When man is healthy, in fact, then health also exists, and the spherical form of the bronze exists also only united to the sphere of bronze.

in and through itself is admissible only through the intellectual soul of man.

(In respect to the exact historical accuracy of the theory here attributed by Aristotle to Plato, there is room to have some doubt: Plato, in fact, in his dialogues, repeatedly affirms the existence of forms even of artefacts: for example, the form of shuttle in the Cratylus, the Idea of bed in the Republic. We can entirely put aside this problem and still understand the text we are considering.)

The doctrine of Plato is here again confuted in part: of "fire", "flesh", "head", which are only natural things, and not "separate forms". They are resolved into the matter of natural things.

When Aristotle speaks of matter, the concept is understood at diverse levels: the first for example, is matter of the flesh, the flesh is —in its turn—matter of the head and of the members: the latter are proximate matter of single individuals (substances par excellence are, here, said to be individuals: the latter are, in fact, substances in the highest grade if they are, on the one hand compared with matter and on the other, with the Ideas of the Platonists).

This is the decisive argument against the position of the separate existence of the forms. The moving cause precedes, with respect to time, that which it moves and that which it produces (a father exists prior to the son etc.); that is not true of the formal cause (the form) which exists solely in union with the thing of which it is the form: the form of a statue exists only in that statue, that of the spherical shape only in this bronze sphere. If this is so, then, Aristotle concludes it is clear that the form does not have an existence separate from the thing of which it is the form.
If, then, any form remains afterwards that is a problem which must be examined; for some beings, in fact, nothing prevents it, as for example, for the soul: not of course, the whole soul, but only the intellective part; for every thing else it would perhaps be impossible. It is clear then that on these grounds, it is not necessary to admit the existence of the Ideas: man generates man and the individual another individual. Similarly also within the limits of the arts: the medical art, in fact, is the form of health.

53 The problem of the subsistence of a separated form seems to have a certain link with that of the subsistence per se or of the immortality of the soul (the soul, in fact, is the form of the body). Now, to deny the separate subsist- ence of the form, implies also a negative answer to the question of the persistence of the soul after death of the body, doesn't it? Aristotle replies, no. He affirms that the two problems are quite distinct and that the solution of one does not predetermine the other at all.

That the soul is immortal i.e. that it continues to be, per se after the death of the body, is certain. But not for the whole soul (i.e. not the vegetative nor the sensitive animal soul), but rather the rational soul. Here Aristotle did not formulate a demonstration of this thesis, because it is a problem that belongs to psychology and not to metaphysics. It is clear that the affirmation is of enormous importance to metaphysics.

54 It is necessary, therefore, to admit the immortality of the soul, but not because of this, to admit the existence of separate form, separated from all things. It is not necessary to admit a separate form of horse in order to explain a horse; nor a separate form of health in order to explain a recovery; it is enough, in the first case that a concrete horse generate another horse and in the second case the medical art in the doctor produces the cure.
Chapter IV

The causes and principles of all things are concretely diverse but analogically identical.\(^{55}\)

The causes and the principles, in a certain sense, are diverse for diverse things; in another sense, if we are speaking universally and analogically they are the same for all things.\(^{56}\)

In fact, the problem can be raised as to whether the principles and causes of substances and relations and similarly for all the other categories -- are they different or identical? But, that they are the same for all is absurd: for then relations and substances would be derived from the same elements. And what can this common element be? Besides substance and the other categories do not have a common element; because elements pre-exist that of which they are the elements.

\(^{55}\) Let us examine the concepts of material, formal and moving cause, not only their chief implications but including the complex problem of the mode of being: the causes and principles are particular, hence they are diverse for diverse things, now are they universal and hence identical for all things? The discussion of this question takes up the entire chapter and the following one. The solution that Aristotle offers constitutes one of the foundations of his "realism".

\(^{56}\) Here is the solution to be given by Aristotle: in a certain sense, that is, in the concrete and in the particular, the principles are diverse as are the things which they effect; in another and related sense, that is, universally and analogically they are identical for all things. The error in this matter lies in the onesidedness, that is, taking either position, the causes diversity or their identity as exclusively valid. Aristotle must now demonstrate these affirmations, giving them their precise sense and their correct value.

The first argument -- The principles are not identical for diverse things but diverse. In fact, if the causes and principles were the same for everything they would be the same for all the categories; from the same cause, in other words, would be derived substance and relation and
In reality, no substance is an element of relations, nor is any relation an element of substance.

Further, how is it possible for elements to be the same for all things? None of the elements in fact, can be identical to that which results from the element itself: for example, "A" or "B" cannot be identical with the combination "AB".

Neither can an element be one of the intelligibles for example, Being and Unity: for these, in any case, are predicates which belong to any composite whatever. No one of them, could be: neither substance nor relation; this conclusion is necessary. Therefore, the elements of all things are not the same.

all the other categories. But what would the nature of a common principle be? Outside of the categories there does not exist any common element: the categories are, in fact, the supreme genera of being. There remains then this one possibility: that the categories are elements with respect to each other, which is an absurd position because neither can substance be an element of relation nor any other category (what is derived from substance is substance); neither can, vice versa, relation or any other category be an element in respect to substance (substance cannot be derived except from substance).

The second argument (which is really a variation of the first—see note 57). The elements, by their nature are diverse for diverse things, which are derived from diverse things (yellow and blue, for example, mixed form green; now it is clear that yellow and blue are different than green). Now if there were an element common to the categories—on the basis of the principle now established—it would be as diverse as the things it produces, hence none of the elements could be substance, nor relation nor any other of the categories. Thus is confirmed the impossibility of a common element of everything. (Cf. Bonitz, II, p. 479).

The third argument: the exposition is extremely concise and in order to understand it, some additions which are implicit must be clearly stated. Do not the Platonists hold that "Being" and "Unity" are the supreme principles of things; would not these "common elements" be superior to the categories themselves and to those things which are derived from the categories. This position, Aristotle says, is also incorrect. In fact, it is clear—that the elements are as diverse as that of which they are the elements; if, then, "Being" and "Unity" were the elements of everything, nothing
Hence, as we have said, in one sense all things have the same elements and in another they have not.

Thus, for example, the elements of sensible bodies are, let us say, as form, the hot and in another sense, the cold which is the privation; matter, on the contrary, that which is primarily and through itself, is cold and hot in potency. Not only these principles as well as the things that are derived from them and of which these are the principles, are substances, for example, (anything unitary which is generated from the hot or the cold) flesh and bone (it is necessary that the product be different than the elements).

would be "one" or "be". On the contrary, "Being" and "Unity" meet and are predicated of all composites (every category and every thing is, in fact, and is one). If instead, the position of the Platonists were true, none of the categories (neither substance or relation nor any other) would be (nor would they be unities), while this is necessary. From all this is shown that the elements of all things cannot be identical. (Cf. Schwegler, IV, p. 245) (For different interpretations proposed see: Bonitz, II, p. 480 and Ross, II, p. 359).

The second part of the position is that the elements of things are the same analogically. Every thing has a matter, a form and a privation; these things are certainly diverse for diverse things, but are analogically the same. The material principle of a statue is different, but it corresponds to the material principle of a house and so on; the formal principle of a statue is different, but it corresponds to the formal cause of a house. The examples can be freely multiplied.

The analogical identity of the principles is shown only with illustrations, having the purpose of making visible and rendering intuitively evident that all sensible things have a form, a privation and a matter; and therefore, that the principles are the same. Note, here, that hot and cold are presented by Aristotle as examples of form and privation of sensible things simply as an hypothesis and only to clarify what he is expressing. The text says in fact ὅπως ὅσος an expression that clearly indicates the merely hypothetical character of the examples: (ὅσος means 'doubt' or 'perhaps'. St. Thomas excellent comment:"Dicit autem, forsan, quia calidum non est forma substantialis corporum sensibilium, neque frigidum est privatio, sed ambo sunt qualitates. Utitur tamen eis tamquam forma et privatione in genere substantiae ad maiorem manifestationem" (op. cit. p. 579, #2465).

Substance, Aristotle then adds, form-priviation and matter (i.e. the principles) and that which is derived therefrom (i.e. the composite) was analyzed in the preceding chapter.
Of sensible entities, hence, the elements and the principles are the same (but different for different things); we cannot say that all things have the same elements except through analogy, as for example, when we say that there are three principles: the form, the privation and the matter. Each of these, however, is diverse for each kind of thing. Thus, we claim that color is derived from three principles: the white, the black and the surface; night and day are derived instead from these other principles: light and darkness and air.

And since there are not only causes which are intrinsic to them but also others which come from the outside, as the moving cause, it is clear that principle and element can be distinguished; both are causes but a principle is distinct

Probably this summary has the purpose of avoiding a confusion that the examples, because they are simple, could easily produce. Hot and cold are qualities, But Aristotle emphasizes that in reality, form and matter are substance, and so also are those things which are derived from them.

It is probable that this is a parenthesis to line 9 after "neither substance nor relation"; it is clear that the unstated thought after these words is exactly that of the parenthesis; this parenthesis, on the contrary, in the place in which it is found makes little sense. Probably it is an error of a transcriber.

Other examples to illustrate the thesis of the analogical identity of the principles. White would be the form, black the privation, the surface the matter: from these principles would be derived the colors; light is the form, black the privation, air is the matter; day and night would be derived from these principles.

Analogy, hence, implies identity and diversity; precisely: identity of relation, and diversity of singular terms. The cold involves sensible things, just white involves color and light involves day and night (all these terms are functions of form); the cold involves sensible bodies as the black involves colored things and dusk involves day and night (all these three terms involve privation); that in which hot and cold inhere, the surface and the air are in the same manner, as substrate with respect to form and privation which is their relative and they constitute the material principle.
from an element; that which produces motion or rest, in fact, is a principle and a substance: thus there are three elements analogically understood, the causes and the principles, instead, are four. They are, however, concretely diverse in diverse things, and also the proximate moving cause is diverse in diverse things. For example, with respect to health, sickness and body, the moving cause is the medical art; with respect to the form of house, this unorganized material and bricks, the moving cause is the builder's art.

Since the moving cause of natural things as for example, a man is the man himself, while that which is produced by thought is the form and its contrary, in a certain way, there are three causes, in another sense, they are four in number. Health, in fact, in a certain sense, is the medical art.  

Finally, on this point, Aristotle has spoken of "intrinsic causes" in relation to something (form, privation and matter are in the thing); at the end of the paragraph, he introduces a new cause: that which comes from the outside, that which is extrinsic with respect to the thing of which it is the cause: this is the moving cause. It is clear that the father and mother are the moving cause of the son, they are outside of and not in their son, so also the artefact with respect to the artist and producer.

Aristotle has thus distinguished three immanent principles and one extrinsic one; the first three insofar as they are intrinsic are called elements; the fourth, instead is not. The father is not an element of the son, neither is the artist an element of the thing he produces. In conclusion: "cause" is a term that signifies an immanent as well as an external principle, "element" is a term limited to intrinsic principles:

\[
\begin{array}{ccc}
\text{intrinsic} & \text{form} & (1) \\
\text{privation} & (2) \\
\text{matter} & (3) \\
\end{array}
\]

\[\text{extrinsic} = \text{moving cause} (4)\]

There are, therefore, three elements, but there are four causes and principles.

Also concerning the extrinsic cause: that is the moving cause, the thesis is established above about the other causes: it is one analogically, but it is concretely diverse for diff-
itself and the form of house in the art itself of constructing the house; besides, it is man that generates man.

But besides these causes there is then that which as the first of all things, moves all things.

erent things; your moving cause is your father, the moving cause of this house is this constructor, the moving cause of your illness is this doctor and so on.

Aristotle, now, proceeds to a delicate reduction of what we have in part already said in the Introduction (Cf. p.19) and in the preceding note (Cf. note 38). The efficient-moving cause, of natural substances, is always another individual who has the same essence or form; for artefacts, it is the form insofar as it is in the mind of the arteficer (the form of the house, on the contrary, is the art itself of the house constructor and the form of health is the medical art itself). In this sense, the efficient cause is reduced to the formal cause, hence the four causes are reduced to three. (Note, however, that the reduction can be done only under certain conditions: it is clear that the efficient cause of a man is another man and that the generator has the same form as the generated; but, at the same time, it is clear that they are two distinct individuals and that the form of the artefact is identical with the art which produces it, only on the basis of a static consideration).

The differences between this "list" of the four causes and that which is presented in the Introduction (p.18 above) which we discussed fully and which is based on the first book of the Metaphysics, as is well known, the differences are however, more apparent than real. The "classical" Aristotelian list of the causes embraces the following four: 1)mater- ial, 2)formal, 3)efficient, 4)final. The first three also reoccur in our chapter; but the final cause is missing but there is the privation. Now, the difficulty is resolved rather easily: the privation is only an uncoupling of the form (it is, in fact, the privation of the form) and comes down to this: the final cause, for Aristotle, is nothing other than the form itself considered as the term of the process of becoming. There is no incompatibility between the two texts.

Besides the cause already examined, there is then the supreme cause that properly is irreducible to any of them, and it is God or the immobile Mover. Aristotle speaks about this cause fully in chapter seven.

It is evident that, this cause is also specifically and numerically identical for every thing. The relation that it has with every individual is, instead, we will see, analogically identical.
Chapter V

Potency and act as principles of change and the continuation of the discussion on the analogical diversity and identity of the causes. 68

Now there are substances that have mode of being independently and other that do not, it is necessary to remember that it is these former which are substances. And for this reason, the causes of all things are the same, because without substances, no affections nor movements could exist. 69

These causes, therefore, are probably, the soul and the body or intellect, will and body. 70

68 Chapter five follows on chapter four by a deeper examination of some points as well as completing some others. The general treatment of the causes and the principles of sensible substances is complete in this chapter.

69 The thesis that the principles of all things are the same analogically is proven further on. Only substances have an "independent" mode of being, (see the demonstration in chapter one) while the categories are only affections and movements of substance hence they do not exist without substance. If this is so, the causes and principles of substances are, necessarily the causes of everything.

70 The phrase is rather enigmatic. Perhaps, Aristotle means this: the causes of substances are the causes of everything; specifically: of living things and of all those aspects of living which are caused by the soul and body; of men and of all their actions and aspects which are caused by the intellect and will (the soul) and the body. The interpretation of St. Thomas is more complete: "He shows that we must also reach certain first principles in the category of substance; for first principles in the category of substance are living animated substances according to the thought of Aristotle, who claimed that the celestial bodies are animated. Hence in the category of substance the first principles which have the character of form and matter will be soul and body, or also body and intellect or appetite; for assuming that a celestial body is animated, its soul has none of the different parts of the soul except intellect and appetite; for the other parts of the soul are directed to the preservation of bodies which are capable of being generated and destroyed. Intellect and appetite also have the character of a mover." (p. 580, sec. 2476).
Again in another way the principles are analogically the same, as act and potency; which, however, are diverse for diverse things, but are found also in a diverse way in the same things. For in some cases, the same entity is now in act and now in potency: for example, wine, flesh, man. Also potency and act fall under the aforementioned causes: the form is, in fact, the act—insofar as it has independent existence—as well as the composite of matter and form, and the privation as darkness or sickness; the matter, on the contrary, is in potency: it constitutes, in fact, that which has the possibility of becoming both the form and the privation.

In another way again the distinction of potency and act differs in the cases in which the matter is not the same and in the cases in which the form is not the same but diverse; thus, the cause of men is their elements (fire and earth as matter, more the form proper to him) and again, another cause which is outside him, as his father; and besides these, it is necessary to include the sun and the ecliptic, which are not matter nor form, nor privation nor assimilable to form but are, instead, moving causes.

In the preceding chapter Aristotle has shown that the causes are the same for all things analogically; now, he shows that the same reasoning applies to potency and act (Cf. Introduction, pp. 20-21 for the concept of act and potency). Potency and act are principles which are valid in general for everything, but, concretely, they are diverse for diverse things. It is clear, in fact, that potency is diverse for diverse things, so also the act of diverse things is diverse: the potency of animals is the seed, the potency of a house is the bricks and the material of the construction, that of this table is the wood; thus the act of a man is his soul; of the house, the form of house; of the table, the form of table. The diversity of act and potency is also in the things themselves when considering them from the viewpoint of the thing itself: this wine is in act with respect to the grapes from which it was derived but is in potency to vinegar; this flesh is in act with respect to the earth from which it was derived but is in potency with respect to man.

The "causes" distinguished above and the principles of "act" and "potency" are reduced in a certain sense to unity. The form or formal cause makes everything a unity with its act, the matter or material cause makes everything one through potency. Act is also the unity of matter and form, because the character of the formal determination impressed on it, predominates in it. The "privation", from the textual
Further, it must be understood that some causes can be said universally and others not. The proximate principles of all things are: the proximate principles which are in act and individual and another which is in potency. Hence, these "universal principles" do not exist. The principles of individual things are individual. Man, in general, in fact, is a principle of man, in general, but no man exists as such; the cause of Achilles is, on the contrary, Peleus, and of you your father; and this individual "B" is the cause of this individual "BA" while the universal "b" is the cause of the universal "BA".

viewpoint, does not clearly refer to either potency or act. Alexander refers it to potency, the moderns, more or less to act. The text is indeterminate and that's how we left it in translation.

This paragraph is very difficult and is capable of different interpretations. Aristotle continues within the context of the distinction of the different ways in which things and their causes can be regarded as potential and actual. It has been explained above that the material cause, the formal cause and the composite are reduced to the first (material cause) as potency and to the other two, to act. Now Aristotle applies the distinction of act and potency to the moving cause. To do it, he distinguishes: 1) the proximate moving cause, which differs in matter from what it effects (e.g. the father and the son). 2) the remote moving cause, which differs in form from what it effects (the sun which moves in an oblique circle and by that movement effects generation and corruption).

Now let us ask: these two efficient causes, are they potential or actual? Aristotle emphasizes his response, by implicitly retaining in the distinction itself the two types of causes. To what does he want to allude? If to the signification of potency and act studied above, then the moving cause must be qualified as act: a substance can produce or move another (i.e. make it move from potency to act) only if it is already in act itself. But perhaps, Aristotle wants to direct us here (as Ross, II, p. 362 claims) to another concept of "potency", different from that which he presented in the preceding paragraph. In Book IX chapters I-V, he distinguishes two different significations of "potency": 1) potency in the sense of "principle of movement in another" (ἐν ἐν ἁλαγω), i.e. in the sense of power or capacity and 2) potency in the sense examined above as the possibility of matter to take on the form. Now, if this distinction stands, efficient causes, insofar as they are principles of movement (ἐν ἁλαγώ) must be qualified as "potencies", understood in the first of the two senses.
In addition, if the causes and principles of substances are the causes of everything, they are, however, diverse for diverse things, as was said above: things which do not enter into the same genus (of color, sound, substance and quality) their causes will be diverse except by analogy; and things which enter into the same species will have diverse causes, not conceptually but numerically: your matter, your form and your efficient cause are not numerically identical to mine, while abstractly and conceptually they are, on the contrary, identical.

(For our in depth examination of this two-fold sense of potency, see my work: "La dottrina aristotelica della potenza dell'atto e dell'entelechia nella Metafisica", cit. passim).

What is meant are the universal principles of the Platonists (i.e. the Ideas).

The sense of the present paragraph is as follows: causes taken in general or universally are the causes of things taken in general or universally. But reality is not made up of things taken universally but rather of things that are singular; not, for example, about men in general but about particular men (you, your friend etc.) hence, the causes that explain these concrete individuals are not taken universally but singularly: your efficient cause is your father, your material cause is your body, etc. Aristotle has repeatedly summarized what was said above. Here he confirms the aspect through which the causes are particular and diverse. In the rest of the paragraph, he will return to also confirming the other aspects of universality or analogical identity of the causes.

See the preceding chapter.

Things are specifically equal and would have as causes, the specifically equal. For example, the causes of all men (the men are the same in species) are the same matter and the same form, the same efficient cause, but your matter is numerically diverse, although it is equal to you specifically; thus your efficient cause and mine is a man, but yours and my efficient cause are two diverse individuals. This addition completes the material spoken about in the previous chapter.

To summarize: 1) the causes of diverse things which are diverse generically are only analogically identical; 2) the causes of things generically equal are besides being analogically identical and generically the same (the causes of men and rational animals are generically the same); 3) the causes of things identical in species are specifically equal and diverse only numerically.
If it is a question, hence, of what are the principles and elements of substances, of relations, and quantity and whether they are identical or diverse, it is clear that, considered in general, they are identical for everything, on the contrary, considered in particular, they are not identical but diverse; except that they are understood as identical for all in the following manner: (1) in one sense, analogically, as: matter, form, privation and moving cause; (2) then in the sense that the causes of substances are the causes of everything insofar as, if substance is destroyed, all the rest is destroyed also; (3) also, in the sense that whatever is primary and is completely in act is the cause of everything.

On the contrary, in these other senses the primary causes are diverse: the causes constituted by contraries are diverse when they do not belong in the same genus and when they do not enter into a more general concept and the matter of diverse individual things is diverse also.

Thus we have stated, the nature of the principles of sensible things and how many there are and in what sense.

In other words, analogical identity does not imply specific identity, generic identity implies analogical identity, specific identity implies both generic and analogical identity.

Further conclusions are summed up from the preceding chapter. The conclusions noted above (Cf. preceding note) are integrated in this ultimate sense: 1) the causes of substance are analogically identical, seen above; 2) as everything which is not substance is related to substance as an accident thereof or a movement, the causes of substance are the causes of everything that exists; 3) finally, there is also a supreme principle which as pure act is the cause of everything and this is the most "universal" of all causes. In these three senses, therefore, it can and ought to be said that the causes are the same for everything.

A most difficult passage to understand. It seems that Aristotle alludes to the diversity of the causes conceived as the most determined cause of a determinate individual. For example, these determinate contraries of this given thing (this determined form and this determined privation), in opposition to the contraries which are identical generically (white and black, hot and cold) or contraries which are identical analogically (form and privation) (Cf. Ross, II, p. 367; Tricot, II, p. 664, n. 1). The general sense would be, then, that
they are identical for all things and in what way diverse.

the causes are diverse if seen either as singular oppositions constituting individual things, or, as the singular matter of individual things.
Chapter VI

The demonstration of the necessary existence of an immobile and eternal Substance which moves the universe

Since it has been said that there are three kinds of substances: two physical and one immobile, we ought to speak about this and we ought to demonstrate that there exists necessarily an eternal and immobile substance. Substances, in fact, have a priority with respect to all other modes of being and if they were all corruptible, then everything would be corruptible. But it is impossible that movement be generated or corrupted (for they always existed): nor can time be generated or destroyed. In fact, it is impossible

80. We begin here, the second part of the book concerned with the supersensible substance. In this chapter, Aristotle shows the necessary existence of supersensible substance (God) referring in part to the demonstration given in Bk. 8 of the Physics. Although challenged, more from the viewpoint of the physical and cosmological presuppositions of that time; the proof of God which is given here, contains a nucleus of perennial truth. The celebrated "prima via" of St. Thomas refers to this proof.

81. The priority of substance is demonstrated in Bk. 7, c. 1, throughout, as well as in the first chapter of the present book. Everything which is not substance exists only as a determination, affection and movement of substance; if substance is eliminated, everything else is also eliminated. Whatever is not substance, hence, must belong to substance itself, strictly through itself, or else it is not properly being: it will not have proper being (See, notes 3, 4, 5, 6).

82. If all substances were corruptible even more so would the rest be corruptible, nature does not exist except in and through substance and hence must share the fate of substance.

83. What is simply affirmed here is the subject of a long demonstration in Bk. 8, 1-3 of the Physics. The complex arguments given by Aristotle in order to demonstrate this thesis, are thus different evidences and precisions of the following reasoning. Generation cannot possibly be the result of movement; in fact, in respect of movement it is impossible to conceive of an absolutely first, because it is always possible to conceive of the existence of a prior movement. The source of the Aristotelian mentality is his conviction that the beginning of a movement is absurd and inconceivable: the process of being generated is a movement so that the process of generation would require a prior movement of the movement...
for there to be a "prior" and a "posterior" if time does not exist. Both movement and time are continuous: for time is either the same as motion or a determination of motion.

Now there is no continuous movement except spatial movement, and of spatial motion only the circular.

of the movement and so on. It is evidently a contradiction. The same can be said for corruption. Motion, hence, is eternal. It is clear that all the reasoning collapses, if placed in a creationist perspective; a perspective that neither Aristotle, nor later Greek philosopher has any knowledge.

84 The same argument but more elaborate is found in the Phys. 8, 1, 251b10-28; briefly put there as well as here, it is however clear. The generation of time would imply logically a beginning of time; now, prior to this beginning it is conceivable that there is a "first"; the same must be said for corruption which would be the end of time; well, after this end, it is possible to conceive of an "after". Now, how can a "first" and an "after" be conceived of time because they would have to both be contemporaneous? Hence, time can have neither beginning nor end.

It is also evident, however, that this reasoning as well as the reasoning analyzed in the preceding note would not be valid once the notion of creation is acquired: a "before" in time would not strictly exist at all, and so there would be no "first".

85 It is not that Aristotle certainly identifies time and movement, as the first of these affirmations would suppose. The question of time is treated especially in Phys. 4, 10-14. In particular, chapter 11 which is the source of the necessary clarifications for the understanding of this passage. Time is not motion but it does not exist nor is it perceptible without motion. If this is so, time must be an aspect or element of motion. Motion insofar as it always implies quantity and space, also implies a point of departure and a point of arrival, a "before" and an "after", a "prior" and a "posterior". But the same relationship between prior and after is involved in time (this is necessary, taking for granted the relationship between time and motion that we spoke about). Now, it is clear that the relation between prior-posterior is involved in motion and it is by observing movement that we recognize time; but (and this fundamental for the comprehension of the Aristotelian argument) time has a different essence than motion and it is not motion. This relation of before and after remains, as such characteristic
If then a moving efficient principle exists but it were not in act, there would be no movement; for it is impossible for that which is in potency not to pass to act. (It will not help matters to introduce eternal substances, as the proponents of the Ideas do, if, a principle capable of producing movement does not exist in being, hence, this kind of

of time. In this sense, is the definition of Aristotle to be understood: "time is the numbering of a motion with respect to a "before" and "after" (Phys. 219b1; 220a25). "Number" is used in an analogical sense: in fact, "while number permits us to distinguish between more or less", time permits us to distinguish between more or less with respect to movement. "Number" is clarified by Aristotle, in the sense of the numerable or the enumerated; number, hence, is the aspect of movement which can be numbered or enumerated (measured or measurable) (219b). In this sense, time is an affection of motion.

Movement to be eternal must continuous, but only spatial movement is thus, and, of spatial motion not the rectilinear (which can only be infinite), but only circular motion (See, Physics 8,7-9).

Note: the affirmation that movement, as well as time, is eternal, implies the existence of one or more eternal moving substances: movement according to Aristotle does not exist outside of things but only in things (See, Met. 11,9), that is, in the things moved. Now, if there are eternally moving things there must, of necessity, also be a principle that moves eternally.

Aristotle, in our text, passes immediately from eternal movement to an eternal mover but it is better to present "the passage" as understood, which makes his reasoning more clear.

Eternal movement postulates, therefore, a principle or substance which moves eternally. How must this substance be, in order for a perfect eternal movement to be explained? In the first place, it must be active or in act; in fact, what is potential may or may not pass into act; but if such were the nature of the principle of motion, eternal motion would not be guaranteed: hence, the principle must be in act.

The Ideas of Plato are eternal substances, but in Aristotle's view, they are not act but potency, hence, they do not explain what they are supposed to explain.
substance is inadequate, nor are the other substances besides the Ideas any more so; if these substances are not active, movement will not exist). Again, it is not enough for them to be active if their nature involves potency; in that case, there would not be an eternal motion; it is possible, in fact that what is in potency not pass into act. It is necessary therefore, that there be a principle, whose very substance is act. Consequently, it is also necessary that these substances are devoid of matter. They must be, in fact, eternal, if anything eternal exists. Accordingly, they must act.

89 That is, the Numbers and the mathematical Objects, which are regarded by the Platonists as eternal per se subsisting substances. These also are inadequate, for the same reasons that were given for the Ideas.

90 A later specification of the point already established (See note 87): the eternal motion must not only be active or in act, but also be pure act, in order to guarantee the eternality of the heavenly motions.

91 It is thus a necessary consequence of the preceding statement; potency is matter, act is form. What has no matter has no potency and so is a pure act or pure form.

92 The eternality of the first principle is already necessarily implied in the fact that it is the cause of eternal motion and hence must be eternal. Here we have it confirmed in another way: that the nature of the principle is pure act, pure form, without materiality or any potentiality and that as such, it is eternal.
On the other hand, an impasse arises: it seems that, as a matter of fact, everything which is active presupposes potency and that, on the contrary, not everything which is in potency passes into act; it would seem, in this way that potency is prior to act. But, if this were so, no beings would exist: for it is possible, in fact, that what is potential might not yet be. However, even if it were as the Theologians say—that all things were derived from night, or as the Physicists say—that all things were together, it would add up to the same impossibility. In fact, how could movement be produced if a cause in act did not exist? The material, in effect, can not move itself, but the art of building moves it; and neither can the menses nor the earth move themselves but the semen and the seed does.

Because of this, some admit an eternal activity, as Leucippus and Plato: they hold that movement is eternal.

These conclusions involve the absolute priority of act over potency. But is this really so? It would seem from one viewpoint that act is not prior to potency but vice versa. Everything that is in act was also first in potency, while all that which is potency seems to necessarily pass to act: hence, the priority seems to belong to potency.

Now, the response should be: it is true that sensible things that are in act were previously in potency, but only in this particular sense; in fact, the passage from potency to act is preceded by another thing already in act (you, for example, passed from potency to act because your father was already in act; and so analogically for all the other cases), hence, in the ultimate analysis act is prior.

Aristotle has answered this way previously. For now, he is limited to this observation: if potency were first, the existence of beings would not be guaranteed: what is in potency, in fact, can be, but also may not be.

"The night" and "the mixture" are assimilable to pure potentiality and matter, insofar as they are said to be "indeterminate". The absurdity into which the Physicalists and the Theologians fall, by positing the priority of Night and the mixture, is the same absurdity that follows from the priority of potency.

See note 93. What moves night and chaos so that the cosmos can be born? Evidently something that has the capacity to do it; and this must be in potency to act. The matter, to which night and chaos are reducible, cannot move itself but can only be moved by a cause in act. The two examples that Aristotle presents have the purpose of clarifying this concept.
However, they do not say why it is so, and what nature it is, nor do they give the cause of its being in this way or in that way. For, nothing in fact moves haphazardly, but it is necessary that something moves always from a principle: for example, something now moves in this way through nature, something else in this other way by force, or intelligence or by something else. And of what nature then is the primary movement? This point is of major significance. But Plato

96 I.e. to avoid the contradiction mentioned above.

97 Leucippus and the Atomists affirm that the movement is original, in the sense that the atoms possess it themselves; in virtue of this movement (which is not very clear, whether it is to be conceived as the fall of the atoms, or as a random motion like fine atmospheric dust); encountering themselves, the atoms produce a vortex motion (which carries the heaviest to the center and the less heavy to the periphery) from which, then, the cosmos is born.

According to Plato, however, there is an eternal movement of the material elements, which is confused and disordered which is reduced to order by God (Timaeus 30A).

98 They did not say why there are movements in act, they did not say how it is done: if rotation or in some other way, they did not give the reason for which something is moved in one way and at another time in another way (Cf. Alexander p.690 34).

99 The elements move naturally to their place: the heavy toward the bottom, the light toward the top; everything can be moved violently through an external agent contrary to their natural tendency, for example, when a stone is thrown. Men in most of their actions are moved through the action of their intelligence. These clarifications are aimed at showing the necessity not only of assigning a cause to the motion but moreover of qualifying in an exact way the cause itself, which these philosophers have not absolutely done.

100 Is the first movement caused by nature, by violence or by intelligence.

101 In the Phaedrus, Plato describes the soul as a self-mover, hence, as the cause of motion (Phaedrus 245E). But considering only the doctrine upheld in the Timaeus, the soul of the world does not exist prior to the constitution of the world itself and is born at the same time as the cosmos (34B). But if this is so, the origin of movement cannot be the soul. What is it then? These are problems that Plato did not successfully explain (I am closest to the interpretation of St.Thomas see, p.568,#2505,see Rolfes,op.cit.II,p.182,n.37).
can not even explain what he has retained as his principle i.e. that which moves itself. This, according to him is the soul, which as a matter of fact is consequent on movement and which is produced together with the world, as he himself affirms.

Upholding that potency is prior to act is, in one sense, justified and in another sense, not as we said before. Anaxagoras attests that act is prior (the intellect, in fact, is act); so does Empedocles in the doctrine of love and strife and those also as for example, Leucippus, say that movement is eternal. Therefore chaos and night do not endure for an infinite time but the same things have always existed cyclically or in another way, on the supposition that act is prior to potency. Now if reality is always the same

102 This is the definitive solution of the difficulty mentioned in note 93: potency is only prior to act if we regard individual entities in themselves and from a limited viewpoint: you have been first in potency, and then you pass to act (and in this sense potency is prior); but insofar as they pass into act through a father already in act, there was first the form which is act, and there were also all the other universal causes of generation in act: in this sense, absolutely, act is prior to potency.

103 The reference is uncertain: some think that Aristotle is alluding to 1072b22-26 of this chapter itself (Bonitz, II, p.492; Tricot, II, p.669, n.5); others to the fifth chapter of this book (Gohlke, Metaph. p.365); others still to chapter 8 of Book Kappa (Schwegler, IV, p.254 #14) where the relationship between priority and posteriority and act and potency is studied. It's probably this last judgment that is correct.

104 Here, as almost always, Aristotle interpreted these philosophers from his own point of view: the concept of act, in fact, is an Aristotelian discovery. But the Stagirite sees these thinkers in the doctrines mentioned as implicitly confirming his own position.

105 Here are some of the more important consequences of the thesis concerning the priority of act over potency. Chaos and Night cannot exist through an infinite time prior to the actual world, precisely because they are potentialities. Although act is prior to potency, the world must always remain in act thus as it is now, or, at the most, it must always remain as it is now in alternate cycles; as some philosophers hold, e.g., Empedocles (in alternate cycles the world returns to dissolve into the original elements and then returns to reform itself). This second state of the world is not accepted by Aristotle except as an hypothesis which he does not concede.
in its periodic changes, it is necessary that something always act constantly in the same way. And because generation and corruption can be, there must be something else which acts in a manner which is always diverse. And this needs that, in one way, it act in virtue of itself and in another way, in virtue of something else; hence in virtue of the

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If the world is always in the same state of necessity (see the preceding note) there must also exist a principal agent, operating always in the same way. In other words, that the being of things is always in the same way implies an agent cause proportionately; and this can be nothing less than a moving cause moving in a uniform manner. 

Be careful: the identity of the thing about which we are speaking (ἐιδη το ἄντα ἔξει περιοδίω) ...understood as Alexander claims,[p.691,38] τὰ ἄντα περ ἐστὶν it is not static, but dynamic in its identity and in its continuous and periodic generation and corruption and cyclical movements. Hence, the cause which is productive of this dynamic continuity will be something which moves constantly and uniformly; and this according to Aristotle, is the first heaven or the heaven of the fixed stars.

107

The sphere of the heavens, that is, of the fixed stars, if they serve to explain the constancy of the things in the world, do not explain the fact of generation and corruption itself. In order to explain the coming into being and corruption of things, it is necessary to have a further cause that is, a cause which acts in ways that continually change. And this would be given by an annual revolution of the sun in an oblique orbit. In its annual movement according to this oblique path, the sun approaches -- spring and summer and receds -- autumn and winter from the earth; the approach produces generation and its receding produces corruption. "For we see", comments St.Thomas, "that which by the approach of the sun to us, is generated, and by the receding of the sun, is corrupted. Just as the plants which in the spring are born, and in the autumn wither away." (p. 587, sec. 651).

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The sun not only completes the annual revolution on the ecliptic, but completes a daily movement by rising and setting every day. This movement is, therefore, parallel to that of the fixed stars. The sun's annual movement belongs to it of itself, the daily movement in virtue of another (see the following note).
latter principle, or in virtue of the former principle. But it is necessary that it be in virtue of the first: for this is in turn the cause of both: of the one and the other. Hence, the first is better. We said, in fact, that it is a cause of the being, the being of things always non-variant; the other, on the contrary, is the cause of being, the being of diverse things and both together are the cause of the being of things that are always diverse.

Hence, in this way, movement is described. What need is there, then, of seeking other principles?

109 The other in virtue of which the sun completes its daily movement, the fixed stars, also need another principle. This second hypothesis is rejected because if it were so, this other principle would be a further explanation in function of the first and thereby produce a vicious circle. It is necessary, therefore, to go immediately to the first hypothesis: from this, therefore, the sun repeats its diurnal motion (See Bonitz, II, p.493; Ross, II, p.371; Tricot, II, p.671 and the note).

110 The heaven of the fixed stars is the cause of the permanence and constancy of things; the movement of the sun in an oblique orbit is the cause of the diversity—that is of generation and corruption as such; the first and second together are the cause of the constant diversity or of the dynamic constancy of things as we said above.

111 A polemical blast at the Platonists: who need to introduce the Ideas and mathematical Entities. In Aristotle's view there is no need to introduce such beings.
Chapter VII

The nature of divine substance and its perfection

Since it is possible to think that things are this way and if it is not true that everything is derived from night, and from the mixture and from non-being these difficulties may be considered solved.

There is something always moved with a continuous motion and this motion is circular (and this is evident not only by argument but also as a matter of fact); therefore the first heaven must be eternal. There is therefore something that moves it. And, since the first heaven, which is moved, while it moves is intermediate, there also exists something which does not move, but moves and which is an eternal actual substance. And it moves, thus as an object of des-

112 This chapter contains the most involved, profound and decisive lines that Aristotle thought and wrote about God, the ultimate principle of all things. It constitutes, also, the text which has perhaps exercised the widest influence on all western thought, "what," writes Tricot, "has been drawn from it, through its doctrines; the medieval theologies, that is, the principal elements of their conception of the world and of divinity, and the basis itself of their metaphysical constructions (see Tricot, II, p. 672 n.2).

113 This continuous circular motion is evidently given as a fact of experience: "we see" and "we observe" says Aristotle that the celestial bodies and the heavens move constantly in a circular fashion around the earth.

114 This reasoning concludes the second part of the preceding chapter. (1) It is clear that sensible things are constantly being generated and corrupted; (2) it is also clear that the cause of these changes, of generation and corruption, is the movement of the sun in an oblique orbit, (3) it is clear, moreover, that the cause of the constancy and of the identity, is the constant, eternal, uniform motion of the primary mobile that is of the sphere of the fixed stars. (4) Now, concludes Aristotle, the heaven or the sphere of the fixed stars or the prime mobile cannot be the supreme principle or absolute primary: in fact, insofar as it is moving, it is moved by another. The prime mobile postulates, therefore, a prime mover that moves without itself being moved. The terseness of the passage presupposes an already acknowledged demonstration of the principle: everything in motion is moved by another, as proven in Phys. 8, 5 (See Intro. pp. 24-25).
ire and intelligence: it moves without being moved. Now, these in their highest grade are identical. The object of desire, in fact, is that which appears to us as beautiful but the supreme object of the rational is that which is objectively good: we desire something because it seems beautiful, and not, on the contrary, what seems beautiful because we desire it; thought is, in fact, the principle of

115 The physical movers, by exercising their moving function, move while they themselves are unmoved. But they are inevitably involved in the motion that they produce, in the sense that the movement always has a repercussion on them. The soul itself cited in the Physics (Bk.VIII) as a better example of a natural immobile mover, does not escape from being subject to the reciprocity of which we spoke: the soul, in fact, moves the body and it is moved—for example, changing place—, carrying along with it, the soul which exists in it; in this way, the soul becomes if not absolutely unmoved, at least relatively unmoved.

Now the causality of the prime Mover is of a diverse complementary nature with respect to that of physical agents and the soul: he moves by remaining absolutely and also relatively immobile: without, i.e. the motion which it produces, reflecting back on it in any way. But how can this be and how can we conceive of this type of causality? Is there something in the order of knowledge, which can move without being moved, and which in this way can furnish the terms in order to comprehend this type of divine causality?

Aristotle has an excellent reply for this problem. The object of desire i.e. the good and the object of thought i.e. the intelligible, are, precisely, examples of movers that do not move: the good suffers no repercussions by the fact of being desirable or desired, and, so, the intelligible by the fact that it is an intelligible object or thought (Cf. e.g. also De Anima,III,10,433b15 ff?). The causality of the prime Mover can and must be conceived in this way.

The reasoning that follows, demonstrates precisely this point.

116 That which is supremely desirable is identical to that which is supremely intelligible. Aristotle demonstrates this statement in the following way. He distinguishes, in the first place, the object of desire i.e. of the sensible appetite (τὸ ἐπιθυμητέον) from the object of rational desire i.e. of the rational will (τὸ θερετέον, τὸ βουλητέον): the first is constituted by what appears to be pleasing to the senses, the second is, on the contrary, constituted by what is objectively beautiful and this alone is recognized as such by the reason. The supreme object of the rational will i.e. the good

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the rational will. The intellect is moved by the intelligible and the intelligible of itself is in the positive series of opposites of this series, substance is primary, and first among substances is that which is simple and actual.

and the beautiful is therefore also the object of reason and intelligence. This only demonstrates half the thesis: what is supremely desirable (desirable by the rational appetite) is intelligible; it is necessary to see if the reverse is true: that the intelligible is beautiful and good and that the supremely intelligible is the supremely good. Aristotle shows, now, that the intelligible is in the positive series (Cf. preceding note) and that substance is the greatest positive, hence, more than anything else, the substance which is immaterial, simple and a pure act. But the beautiful (= the good = that which is objectively desirable) is part of the positive series and hence is identical with it. Therefore, the intelligible coincides with the beautiful and the good (= what is of itself and through itself desirable) and the supremely intelligible (= immaterial substance and pure act) coincides with what is supremely beautiful and good i.e. the supremely desirable.

It is not desire that produces the good but vice versa, the beautiful produces desire; the beautiful is prior and the desire posterior.

The text says "έτερα συστοιχία" without any further specification. It is clear, hence, what is being referred to. In Bk.IV,2 and IX,9 Aristotle says that things can be distinguished in two series: one is positive (έτερα συστοιχία) or of being, the other of non-being, or privation and negation. Everything which belongs to the first series is intelligible of itself, but not so for the second, because it presupposes the first as privations and negations of the first. For example, substance is intelligible of itself, while non-substance is conceivable only mediately i.e. by negating substance. Health is conceivable of itself but sickness which belongs to the negative series, is conceivable only through health, and so on.

The simple, pure act is evidently the immobile movent or God.
(unity and simplicity are not the same: unity signifies a measure; simplicity signifies, on the contrary, the nature of the thing itself). Now, the beautiful and what is of itself desirable are in the same series, and what is first in the series is always best or what is equivalently best.

That, then, the end is found among immobile substances is shown through the following distinctions: the goal has two senses, that in virtue of which and that on behalf of which: in one of these senses it is found among immobile substances, in the other sense, no. And the primary substance moves as an object of love, while the other substances move by being moved.

120 The purpose of this parenthetical note is not clear. Some think that it is polemic aimed at Plato, who posits the One as the principle of things. On this interpretation, Aristotle would be separating his interpretation from that of his teacher. In other words, Aristotle when he speaks of a simple substance, is not speaking about the Platonic One. ( Cf. St. Thomas, op. cit. p. 591 #2525; Rolles, II, n. 44). Other interpreters think that Aristotle is preparing an objection in view of the doctrine that is upheld in chapter 8: if a simple substance is one, then how can we speak of a "multiplicity of simple substances" (Cf. Alexander p. 695, 10 and Bonitz, II, p. 498). Still another interpretation conceives the phrase as underlining the nature of the unmoved Mover. The unmoved Mover is immaterial; which means "simple" i.e. without parts and immaterial. This is, for now, an important clarification. God is also one of a number, but more will be said about it (Cf. Schwegler, IV, p. 261, 5). Of these interpretations, the first and the third are the more probable.

121 I am following the interpretation proposed by Schwegler (IV, pp. 261-263).

122 Aristotle on the basis of the position established here, has already reached the solution of the problem of the determination of the causality of the immobile Mover; it is the supreme good, and, as such, that is as an end desired, it moves.

But before this solution can be definitively stated, there still remains a difficulty to be overcome: how can there be any finality for immobile substances? Is immobility compatible with finality or do they exclude each other? Finality would seem to imply action and action implies movement. This difficulty was already resolved in Bk. III and repeated in Bk. XI, it takes a distinction between two meanings that are involved in the term 'end'. (1) In a first sense, the end can indicate a terminus existing actually, to which a thing or
If, therefore, something moves, it can be otherwise than it is, therefore, if its act is the primary movement of local motion, only insofar as it moves in this way can it be otherwise than it is i.e. insofar as it moves according to place and not according to substance: and since something exists which moves by being of itself immobile and in act, this substance cannot in any way be otherwise than as it is. Movement in place, in fact, is the first of the changes and first among these changes of place is rotation: such is the movement which the first mover produces. These, therefore, are beings which exist necessarily and insofar as they exist of necessity, they exist as good, and in this way it is a principle. In fact, the necessary has the following signifi-

action tends: for example, a place to which a movement tends or an object which is desired; (2) in a second sense, the end can signify something not yet in act but existing solely in the intention of the agent, and that an action tends to realize (for example, the health which a doctor's surgical procedure hopes to accomplish). Now, it is clear that, in this second sense, the end implies movement and cannot be found among immobile substances, while it can so be found in the first sense (Cf.St. Thomas, op.cit. p.591 #2528).

Here is the final solution: the primary Mover moves as an end (τέλος) or purpose (το ού ενέκοιτο) thus as the beloved attracts the lover. In such a way, the prime Mover remains absolutely immobile, while the first heaven and the other spheres are moved while being moved.

Having defined the nature of the causality of the prime Mover, Aristotle deduces the absolute immobility of the prime Mover and he defends the major differences between the prime Mover and the primary mobile. Everything that moves, he says, is contingent insofar as movement makes it different from what it is. Now the primary movement is change of place and the primary mobile moves only in accordance with this kind of movement, being free from all the other kinds, which are proper only to sublunar things; in this way, the prime mobile can be different from what it is only in regard to space and not in regard to substance, to quality and to quantity (it is not generated, nor corrupted, nor grows nor diminishes, nor alters). Now, the primary Mover, which is pure act and does not even move through local motion can be absolutely diverse from what it is, in no way at all. It, therefore, is necessary.

The text says καλός. Carlini translates "gracefully", but, in this way, it loses the sense Aristotle meant. Further literally, it could be translated by "as beautiful"; but as we have seen above--"the beautiful" is, in these chapters, used as a synonym for the good. The explanation of Tricot is
ications: that which is by constraint against inclination, that without which the good cannot exist, and, finally, that which cannot in any way be otherwise than it is. 127

On this principle, hence, depend the heaven and nature. And its way of life is like the best way of life which is possible for us only for a brief period (thus, in fact, it is always, while for us that is impossible), 128 since its activity is also pleasant 129 (and because of this, waking, sensation and knowing are most pleasant, hopes and memories are pleasant because of these). 130 Knowing which is of itself excellent: "Being necessary, he is the good par excellence (...) in fact, nothing contrary can affect his nature; in other words, his intrinsic necessity is identical with his perfection." (Tricot, II, p. 679, n. 2 to the end).

126 That is, as the good and as the object of love.

127 The term "necessity" (ἐνέκοιτον) can have these three meanings: (1) what is produced by force, or violence or constriction; (2) that without which the good can neither be nor become or the evil that cannot be avoided; for example, the medicine that must be taken to recover health or the study that must be done to become wise; (3) that which cannot be otherwise than it is (see also the other passages which we have commented on in Bk. 5, c. 5 throughout). Now the immobile Mover is necessary in the third sense not in the first two senses. (On the concept of necessity, the work of Chevalier is fundamental, La notion du nécessaire chez Aristote, Paris 1915).

128 God is always in the same state and condition because he is pure act, absolutely free of potentiality, hence in God there is no possibility of changing from one state to another, for example, from knowing to not knowing and vice versa. This latter is the condition of human beings, for us, continual knowing is impossible.

129 The activity of God is pleasant for the following reasons. God's activity is knowing of himself (see note 131); but the highest felicity or happiness is exactly that, according to Aristotle; therefore, it is an activity in which the highest pleasure is to be found (see Alexander, p. 679).

130 Being awake, sensations, and knowledge are pleasant because they are activities and pleasure always consists in activity. Hopes and memories, in their way, are pleasant because they refer to previous or future sensations and knowledge.
has as its object that which is of itself most excellent, and knowing which is such in the highest grade has for its object that which is excellent in the highest grade. Intellect knows itself by taking the place of the intelligible: in fact, it becomes the intelligible by grasping and knowing itself, therefore the intellect and the intelligible are identical. The intellect is, in fact, that which is the capacity of grasping the intelligible and substance, and is in act when it possesses it: therefore, more than this capacity is this possession which the intellect has of divinity; and its contemplative activity is what is pleasant and most excellent.  

If then, in this happy condition in which we find ourselves sometimes, God is permanently, that is marvellous; and if he is in a superior position this is even more marvellous. And in this condition he is actually to be found. And he is also life: the activity of intellect is life and he

The immobile Mover is essentially a knower, and because it is a pure knower, what it knows is the highest object of knowledge. It itself is the highest object of knowledge, hence God has itself as its object of knowledge. The intelligible or the object of the divine intelligence will be hence intelligence itself, therefore intelligence and intelligible are identical. In fact, the divine, in its intelligence, does not consist in the capacity to grasp the object, but in the actual possession of the object; the intelligible in act, and, as such, is first in intelligence; it, in fact, is actualized only in the possession of the intelligible. For this reason it is impossible that the object of the divine intelligence be anything other than the intelligence itself. God is consequently and necessarily, a self-contemplative activity (= a contemplative activity of supreme perfection), and, in this, consists its supreme felicity.

God does not have life but he is life, eternal life is the eternal or continuous activity of knowing.

The interpreters of this passage disagree about what aspect of Pythagorean and Speusippean doctrine is being referred to. Anyway, it is clear that Aristotle is here saying that it is in error to deny beauty and perfection to the principles and to attribute these characteristics to the things that are derived from them. Mature plants and animals, say the philosophers mentioned above, are more beautiful and perfect than the seed (the principle) from which they are derived, and, analogously, mature men are more beautiful than the principle from which they are derived. But this turns out to be based on an error in the understanding of the nature of a principle. The true principle, in fact, is
indeed is that activity. And his activity which is of itself, is life at its best and it is eternal. We say, in fact, that God is a living being, eternal and best; therefore, to God belongs a permanent, continuous and eternal life: this is, therefore, God.

Those who, like the Pythagoreans and Speusippus deny that the highest beauty and goodness are found in the principle, because of the fact that the principles of plants and animals are indeed the cause but the beautiful and the end are only in that which is derived from the principles, have an erroneous conviction. The seed, in fact, derives from other prior beings which are mature; and that which is first is not the seed but the mature individual; thus, for example, it is to affirm that the man is prior to the seed: man is not derived from this seed but rather the seed is derived from the man.

It is clear, then, from what has been stated, that an immobile, eternal and transcendent (to sensible being) substance exists; with the result that this substance cannot have any quantity, and is without parts and indivisible (it moves, in fact, through an infinite time and nothing which is finite possesses an infinite potency; and, since every quantity is either finite or infinite, for this reason, it does not have an infinite quantity nor can it have an infinite quantity because an infinite quantity cannot exist); with the not the semen or the seed, but the man from whom this seed or semen is derived (The popular dilemma: which is first, the chicken or the egg is here completely resolved; the chicken from which this egg is derived is first. The basis of this reasoning is the doctrine of the priority of act over potency. The prior must always be that which is act or that which has more act.).

Some scholars have thought that they could conclude from these sharp affirmations, that Aristotle must have thought of the concept of creation. How, could "the first man" perfectly in act, be born, if not through creation? (Cf. Rolfes II, p.105, n.55). The reply is simple: man in the absolute sense does not begin to be: he is always as everything else is, always. The doctrine of the eternity of the world and of the things of the world (things generated and produced) has certainly constituted one of the chief obstacles to the attainment of the concept of creation; on the part of Aristotle.

This way of seeing (and in which Rolfes is right) is deeply opposed to modern evolutionism and Darwinism. The fixity of species, for Aristotle, is indeed absolute.
result that it is impassible and unalterable: all other movements are, in fact, consequent on local motion.\(^{135}\)

Hence the reasons why things are this way are clear.

\(^{134}\) The final specifications about the nature of the divinity are that God is (1) \underline{not quantitative}, (2) \underline{has no parts} (3) \underline{and is indivisible}.

(1) God has no quantity. In fact, quantity either finite or infinite. But an infinite quantity does not exist, because according to Aristotle, the infinite in act does not exist, therefore, God cannot be an infinite quantity. But God cannot be a finite quantity because he moves through infinite time and no finite quantity can move through infinite time.

(2) God has no parts, because parts imply quantity and extension. God has neither quantity nor extension.

(3) God is indivisible for the same reason: only quantity and extension and parts are, in fact divisible. (The concepts expressed here briefly are discussed at length and proven in Physics VIII, c.10 passim.).

\(^{135}\) God is impassible and inalterable for the same reason that he is immobile. Any passions or alteration implies movement either according to substance or quality or quantity; but God is not subject to any type of motion, neither local which is primary as we have seen (Cf. note 115) nor any of the other movements (according to substance, quality, or quantity) because they are all consequent on local motion, and what lack it, lacks them \textit{a fortiori}. 
Chapter VIII

The multiplicity of the immobile Movers and the unicity of God and the universe

Whether a single substance ought to be admitted like this, or more than one and how many, this is a problem that ought not be overlooked; and the opinion of others must be reviewed, and since with regard to the number of them, they have said nothing that can be stated clearly.

The theory of the Ideas does not contain, in this respect, any specific affirmations (the proponents of the Ideas say that the Ideas are numbers, then they speak of the numbers as if they were infinite, some others, instead as if they were limited by the decade; but concerning the reason why

136 This chapter is perhaps the most discussed chapter in the whole of the Metaphysics. Some regard it as apocryphal, others as the final fruition of Aristotelian speculation and many as earlier than the rest of Book XII. According to Jaeger and others, it contains an innovation for Aristotle's theology; in a first moment, Aristotle would have held for the existence of only one immobile Mover; later, on the contrary, he changed his conviction by introducing a multiplicity of immobile Movers, precisely, in this chapter. I certainly reject the thesis of its inauthenticity and the thesis of its evolution seems to be very dubious. Here, any way, it is impossible to enter into such a question. Let us simply note this: even in the hypothesis of an evolution of Aristotle, there is stated (as an hypothesis and nothing more) the multiplicity of the Movers—and we will see it—they can be in accord with the unicity of the absolute primary Mover i.e. with the unicity of God. In fact, the other prime Movers are stated to be hierarchically subordinated, one to the other and all subordinated to the first. In sum: the statement of the multiplicity of the Movers does not change the Aristotelian monotheism and the nature of his theology: the term God is referred exclusively and properly to the Prime Mover (only at the end of the chapter, does the term "gods" refer to the primary substances; but, here, Aristotle as we will see, refers to the popular belief handed down from antiquity). We will clarify these concepts in the notes which follow.

137 Having demonstrated in the preceding chapter the existence and nature of the supersensible substances as immobile and eternal, Aristotle asks, whether there is only one substance of this type or whether we ought to admit more than

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there is such a quantity of numbers, they do not provide us with a rigorous demonstration); we must, therefore, speak on the basis of what we have established above and made distinct.

The principle and primary beings are immobile both essentially and accidentally and produce the primary eternal and single motion. And since it is necessary that whatever is moved is moved by another and the primary mover is essentially immobile and that eternal movement is produced by a single being and that a movement which is single is produced by a single being; and since, besides we can see that the simple movement of the whole—which we say is moved by a primary and immobile being—there also other eternal spatial motions, one, and, in that case, how many. Note: that the question is being understood in the most general sense. Aristotle does not want to know whether there is one or more gods and how many there are i.e whether there are more substances exactly equal to the one described above; but, simply, if, besides this one, there also exists other supersensible, immobile and eternal substances. It is clear, in fact that, there could also exist substances of a supersensible (immobile and eternal) nature, although inferior and subordinate to it.

The Platonists admit a plurality of supersensible, immobile and eternal substances: the Ideas. They derive, then, the Ideas of Numbers, which are pure supersensible, immobile and eternal substances, but they are not at all precise about how many there are of these: sometimes the Numbers are posited as infinite, others reduce them to the decade. Aristotle will now proceed to the solution of the problem on the basis of the proper principles. (Notice a confirmation of what we said in the preceding note: ask "if we ought to admit only one substance like this, or more than one", can only be understood in a general sense "whether there are one or more supersensible substances"—and not whether there are one or more gods—. On the plane of these supersensible substances of which there is question, are placed, in fact, the Ideas and Numbers).

The first eternal motion, rotation refers to the 'sphere of the fixed stars' or the first heaven (Cf. Chapters VI and VII).
those of the planets (a body which moves in a rotation which is continuous and eternal; which was demonstrated in the *Physics*) it is necessary also that any of these motions be produced by an immobile and eternal substance. The nature of the stars, in fact, is an eternal substance, and the eternal mover is prior in this respect to what is moved, and what is prior with respect to a substance must necessarily be a substance itself. It is clear, hence, that there must necessarily be other substances, and they must by their nature be eternal, essentially immobile, without magnitude, for the above stated reasons.

That, hence, there are these substances and with respect to them which is first and second and so on evidently depends on the order itself of the heavenly bodies.

The number of the movements, then, must be established on the basis of the inquiry by the mathematical science which is closest to philosophy i.e. astronomy: this science, in

The plurality of the unmoved Movers is based on the following reasons. (1) It is clear that there is an eternal, circular uniform motion (the movement of the heaven of the fixed stars); this motion as we have seen is explained by admitting the existence of a prime principle, immobile and eternal which produces it; since the eternal motion is single, it's mover is singular. (2) But—and this is decisive for an understanding of the question we are discussing—it is also clear that there are (in addition to the motion of the first heaven) other movements that are eternal: they are the circular movements of the planets. Now, on the basis of the principles established, that every thing moved is necessarily moved by something immobile, Aristotle must explain all these movements by introducing other movers. Further, since these movements of the planets are eternal, the movers producing them will be both immobile and eternal.

Having demonstrated the existence of a plurality of eternal immobile movers Aristotle now proves that they must be substances. Stars are substances per se, precisely (as we already said) they are eternal sensible substances (sensible because we see them, eternal because they are made of incorruptible aether) and are moved in a circular motion. Now, in general, the mover is always prior with respect to that which is moved and hence the movers of the stars are prior to the stars: again, whatever is prior to substance must also be a substance. Therefore, there are as many substances as are necessary to explain the motions of the stars. These substances are eternal and because the motions they produce

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fact, is concerned with eternal sensible substances, while the others like mathematics and geometry do not have any substance as the object of their inquiry.

That, on the other hand, there are more spatial movements than there are bodies which move seems clear to those who are even slightly concerned with the question (some of the planets, in fact, have more than one spatial motion144). Concerning the question of how many movements there are145, we will now present what some of the mathematicians assert146, that, on the other hand, there are more spatial movements than there are bodies which move seems clear to those who are even slightly concerned with the question (some of the planets, in fact, have more than one spatial motion).

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are eternal; and they are also immobile because the principle of movement is such, on the basis of the reasoning already established above; they are without magnitude because they move through an infinite time and no magnitude is infinite and no finite magnitude has infinite power.

142 Aristotle establishes here, the principle governing the hierarchical order of these substances. The planets have a determined order: they are placed between the earth and the first heaven, one above the other. The order of the movements of these substances must, therefore, be the same as that of the substances they move and evidently, also their dignity, greater or less depends on the grade that they occupy in this order.

143 Up to this point, Aristotle has demonstrated that there are numerous supersensible substances, but what the exact number is, he has not shown. Now he explains on the basis of what criteria he will solve the question. What science studies the motion of the stars? Astronomy. Astronomy, hence, must say how many motions or celestial spheres there are, and, on the basis of what has been already established, it will conclude that there are as many substances as movements to be explained.

144 In order to understand this point consider what follows: Aristotle and the ancients held that the stars and the heavens moved in a perfectly circular movement. Now the fixed stars appear to move with a perfect and very regular circular motion; not so the planets, which in their motions do not maintain an identical position with respect to the other stars. This fact, today we would explain perfectly on the basis of an elliptical orbit of the celestial bodies; but the ancients did not have this concept, in order to firmly maintain the principle of the perfect circularity of the celestial motions and not being able to explain the motion of the stars with only circular motion—because of the irregularity spoken above—they supposed that, for every star, there were different spheres, to which the motions in combination with each other, would explain the observed motion.
in order to give an idea of how the number can be determined by reasoning. But for the rest, some must be investigated by ourselves, while others, we must look to other investigators; and if those who are occupied with these inquiries come to conclusions which contrast with the things we have now said, we must take them all into consideration but only follow the more rigorous views.

The thesis of Eudoxus is that the movement of the sun and moon involves three spheres respectively: the first of them is that which has the motion of the fixed stars themselves, the second is that which moves according to the circle which passes in the middle of the zodiac, the third is that which moves according to the circle which is obliquely inclined on the plane of the zodiac (but the second circle which carries the moon is of a greater inclination than the one which transports the sun).

The movements of each of the planets, instead, involve four spheres respectively: the first and second of them are the same as that of the sun and moon (in fact, the sphere of the fixed stars carries around all the other spheres, and that which is next after this one and which has its movement according to the circle which passes in the middle of the zodiac, is common to all), the third sphere of all the planets has its poles in the circle that passes in the middle of

Eudoxus and Callippus

Eudoxus first proposed a precise system of movements of the different spheres in order to explain the movements of the planets. He believed that it was advantageous that the spheres be 26 in number. In order to explain the motion of the fixed stars, one sphere was insufficient; the fixed stars in fact, have a perfectly regular movement: they are fixed in the first sphere— which constitutes the outer limit of the universe—which transports them in its rotation. In order to explain the motions of the seven planets, he posited 26 spheres. 4 for Saturn, 4 for Jupiter, 4 for Mars, 4 for Venus, 4 for Mercury, 3 for the Sun and 3 for the Moon. Every planet is fixed in a sphere; this movement combined with the others would account for those motions of the planets which we "observe".
the zodiac, while the movement of the fourth is according to the oblique circle in relation to the center of the earth. The poles of the third sphere are diverse for every planet except those of Venus and Mercury which are identical.

Callippus admits the same arrangement of the spheres as Eudoxus and he assigns the same number of spheres to Jupiter and Saturn as does Eudoxus but he thought that two more spheres should be added to those of the sun and the moon, if an account of the phenomena relative to them is to be given, and also one sphere for each of the remaining planets. However, if all the spheres together are to account for what appears to us, it is necessary that for each of the other planets there be other spheres, on less than those already mentioned which counter-act these and maintain in equilibrium, the first sphere of the star which in each case is situated immediately below in order; only in this way can the totality produce the motion of the planets. Therefore, since the spheres in which the stars move are eight for the first two and twenty-five for the other stars, and, of these the only ones that do not need to be counter-acted are those by which the planet in the last place is moved by those spheres which produce the retrograde motion for the first two planets will be six and for the four following planets they will be sixteen; and the total number of the spheres, those which move in the normal sense and those having a retrograde motion

147 Callippus, a disciple of Eudoxus, by accepting the same ordering of the spheres proposed by his master, although he considered their number to be insufficient to give an account of the movements of the planets, added others. For Saturn and Jupiter, he accepted the four spheres proposed by Eudoxus as sufficient, for Mars, Venus and Mercury, he thought that it was necessary to add one sphere each; for the Sun, another two spheres and two also for the Moon. Callippus increased the spheres from 26 to 33 (34, if we include the sphere of the fixed stars).

148 Aristotle, for his part, accepted the calculations of Callippus, but he made a later important modification by adding again to the number of the spheres. He thought that it was necessary to have a certain number of them rotating in a contrary manner to the others, and intercalated them with the others, in order to neutralize, so to speak, the influence of one planet on the planet immediately below it (the resulting motion of the spheres of Saturn would have an influence on the motion of the sphere of Jupiter, the next on the next below and so on) and in this way he hoped to re-establish and
will be fifty-five\textsuperscript{148}. And if to the sun and the moon we do not add the movements of which we have now spoken\textsuperscript{149}, the complete number of the spheres will be forty-seven\textsuperscript{150}.

This is the number of the spheres hence that we have established; it would be logical, consequently, to suppose that there are as many substances and immobile principles\textsuperscript{150} (and what is properly necessary, we decided to leave to those more expert in the matter).

and continuously maintain the perfect and harmonious equilibrium of the celestial bodies.

These spheres which move in a retrograde motion, for each planet, would be as many as those which normally move less one, with the exception of the moon, the influence of which has no need to be neutralized, it being the last planet. Thus to the 33 spheres of Callippus, he added another 22, they then total 55 in number.

Here is a comparative summary of the number and divisions of the spheres according to Eudoxus, Callippus and Aristotle.

<table>
<thead>
<tr>
<th>Planets</th>
<th>Number of spheres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saturn</td>
<td>4(+0) 4</td>
</tr>
<tr>
<td>Jupiter</td>
<td>4(+0) 4</td>
</tr>
<tr>
<td>Mars</td>
<td>4(+1) 5</td>
</tr>
<tr>
<td>Venus</td>
<td>4(+1) 5</td>
</tr>
<tr>
<td>Mercury</td>
<td>4(+1) 5</td>
</tr>
<tr>
<td>Sun</td>
<td>3(+2) 5</td>
</tr>
<tr>
<td>Moon</td>
<td>3(+2) 5</td>
</tr>
<tr>
<td>Total</td>
<td>26(+7)33</td>
</tr>
</tbody>
</table>

For the technical explanation of this doctrine in this part of the chapter see: Schiaparelli, Le sphere omocentriche di Eudosso, Callippo, e Aristotele, Milano, 1875.

\textsuperscript{149} It is difficult to understand the meaning and motive for this reduction which Aristotle would seem not at all reluctant to concede. Probably "the movements of which we have spoken", could be eliminated belonging to the Sun and the Moon, are those added by Callippus (2 for the Sun and 2 for the Moon) and those added by Aristotle himself (the 4 retrograde movements added to the Sun) which equal 8 all told; thus the spheres are reduce to 47 in number (55-8=47).

\textsuperscript{150} Finally we have the conclusions, in order to reach beyond the astronomical digression introduced by Aristotle: if there are 55 spheres, that also is the number of movement substances.
If there can be no spatial movement which does not involve the motion of a star, and if besides, every nature and substance which is of itself impassive and participates in the best should be considered as an end, no other nature will exist outside of these, because this will necessarily be the number of the substances. If, in fact, there were other substances they move something, insofar as they would constitute the end of the other spatial movements: but there can be no other spatial movements in addition to those already mentioned. This is reasonable on the basis of the consideration of the motions themselves of the stars. If, in fact, everything which moves exists for the sake of what is moved, and if every movement is proper to something which is moved, no movement can exist which has itself for its end or another movement, but all movements exist for the sake of the stars. For, if in effect, a movement were to have another movement for an end, and this were to have in its turn some other movement as an end; but because it is impossible to go on to infinity, the end of every movement must be some of the divine bodies that move in the heavens.

That the heaven is unique, then, is evident. For if there were a plurality of heavens, as there is a plurality of men, there would be a principle specifically unique for everything, but it would be numerically plural. But everything which is numerically plural has matter (the conceptual form of plurality is one and identical, as for example, the conceptual form of man, while Socrates is one numerically). The primary substance has no matter: it is, in fact, pure act. The primary immobile Mover is therefore on both specifically and numerically; and hence so is that which is eternally and continuously in motion. In conclusion, there is only one

151 Now all these motions are ordered to the motion of the stars and they are, as we have seen, as many as are necessary to explain the motion of the stars, neither more nor less. In the same way, hence, necessarily, these are the supersensible motion substances.

There might be an objection: could there not be other motions, other than those ordered to the motions of the stars, having as a goal themselves or else other motions: the objection is groundless; in fact, (1) no movement has itself for an end and it tends to move to something other than itself; (2) if, then, a motion could be ordered to the production of another motion, then this would be, also to move a body (a procedure to infinity that is a motion of a motion......which is absurd). (3) Therefore, the celestial motions can not have any other goal than that of the movement of the stars.
A tradition has been handed down to posterity by ancient thinkers in the form of a myth from long ago, according to which the stars are gods and the divine surrounds the whole of nature. The other things were then added mythically, in order to persuade the populace to be law-abiding for the common good. They say in fact that the gods have human shape and they are also like certain animals and in addition, other things are said of a similar nature or analogously; of these, if we put aside the rest, and hold on to the fundamental point: i.e. the affirmation that the primary substances are divine, it needs to be recognized as having been said through divine inspiration.

And since, as is very likely, every science and art is rediscovered, lost and rediscovered, we must retain these opinions of the ancients as a relic conserved until the

152 Having established the number of the supersensible substances, Aristotle (in order to avoid ambiguity that would arise from the affirmation of the plurality of these substances, not only of the celestial motions) makes a special note of the unicity of God and the unicity of the heaven and the universe. Here is his reasoning. The heaven is moved, in its totality by the absolute prime mover (God); now if there were more than one heaven there would also be other absolutely prime Movers (like God). But this is absurd. In fact, these absolute prime movers would all be identical in essence but diverse in number (not one but many). Now, things can be identical in essence but multiple in number, only when they have matter (matter is the principle of multiplicity). But God—we saw—is pure act, form or essence absolutely devoid of matter. Therefore, God can only be unique. If, hence God is unique, the heaven is necessarily unique.

Objection: how can the statements of Aristotle about the multiplicity of the supersensible substances be reconciled with the statements made here? If there are 55 spheres how are they distinguished from one another? The answer is not difficult to find: (1) all are clearly distinct from God by being inferior to him; (2) among themselves, further, they are distinguished because they are in their order, subordinate to one another, one is inferior to the other according to the order of the spheres; (3) the supersensible substances are, therefore, not only numerically diverse from one another but also specifically (each constitutes a form or essence uniquely and is diverse from the others, by not having any matter that could differentiate them).
present. To this point, only, then, are the views of the fathers and those antedating us to be recognized.

153 Aristotle recalls, at the conclusion of his inquiry, the popular belief handed down from ancient times, and finds in it, a nucleus of truth, which he adds as a kind of confirmation of his own theses. This "nucleus of truth" is contained in the affirmations that the stars are gods, that the divine encircles nature and the primary substances are gods.

It should be noted: that here Aristotle refers to popular beliefs and only in this sense does he speak of the primary substances as gods, using popular language. It would be a clear and grave error to hold that Aristotle himself made the mover substances, gods as is the primary Movent. He approves the ancients in this sense: they had grasped that the celestial bodies are not the same in nature as the sensible bodies, and that the primary substances are supersensible and this concept they expressed by calling them gods. But it is very clear that the conception of the philosopher does not have anything in common except a generic correspondance with the fundamental nucleus of popular beliefs; in fact, in the Aristotelian system, the stars are not supersensible substances (they are sensible substances although eternal), nor are the celestial spheres, but only the substances which move the spheres; and--if you wish--these supersensible substances can be correctly qualified as divine, thus also is the rational soul in us: but they are not gods in the sense spoken about previously, and for the reasons given (See, preceding note), God is unique.

154 Let us outline the conclusions that are scattered in this and in the preceding chapters.

I-God or the absolute prime immobile Mover is one or unique.

II-Because God is one, the heaven and the universe which depend on Him is unique.

III- God directly moves the first heaven (that of the fixed stars) but indirectly he moves the rest of the world: both the heaven and nature (See chapter VII "on this principle depends the heaven and nature").

IV- Aristotle on the basis of his presuppositions, his lack of the concept of creation, and holding that God is not concerned with the world but is content in thinking himself, could not have explained the complex system of movements of the 55 spheres (which are needed to explain the motions of the celestial bodies) except by introducing parallel mover substances. In fact: (a) a purely mechanical explanation could not be squared with his teleology, and it would be in flagrant contradiction with the explanation of the motion of the first heaven on the basis of the prime Movent. (b) An
explanation which deduces the movements of all the spheres from the causality of the prime Mover would be impossible, because it is uniform and identical and thus would not be able to explain the diversity (as well as the plurality) of them. Nothing remains except the way Aristotle went: if there are 55 spheres, then there must be 55 substantial movents which move in a manner analogous to the prime Movent.

V-The 55 substantial movents are inferior to God, and are also hierarchically ordered in terms of inferiority to one another, according to the order of the spheres themselves which they move.

VI-From this, hence arises a series of problems which Aristotle left unsolved, and that he also did not state.

(1) What is the precise relation among the 55 supersensible substances and God?
(a) It is clear that they know God (if man knows God, more so do these substances know him; on the other hand, it is clear that since they are not the absolute best, they, as all the other things (but in a more perfect way) tend to imitate God.
(b) But, in turn does God know these substances? If God knows as we have seen, the principles of all things, he evidently also knows these substances. But what is the relation that ought to exist among these substances themselves, if the movents are all thus harmonized and perfectly ordered? On the basis of what Aristotle has said, the problem has no solution.

(2) What is the precise relation (a) between God and the primary mobile and (b) between each substantial movent and its own sphere? Aristotle says, indeed, they move as "ends", by being good and perfect; But how can the spheres feel any urgency for this perfection? In the De Caelo 292a18 and 292b1 Aristotle attributes a soul to the planets; thus, if all the spheres are animated, it would explain at least in part, their capacity to comprehend and be attracted by perfection. But, here, new complications arise: beyond the prime Movent and the 55 movents, we must admit a soul for the first heaven and 55 souls for the other 55 spheres. Some have thought that they could cut through this knot by making God, the soul of the first heaven, and the 55 movent substances, the souls of the 55 spheres. This thesis is contrary to the spirit and the letter of the text of Aristotle. It is right, to acknowledge that here also with respect to this problem Aristotle has not given us a precise answer.
Chapter IX

Divine intelligence as a thinking of thinking

From that which concerns intelligence arises some difficulties. It seems, in fact, the most divine of things as such that are manifest to us; but the comprehension of what is its condition in order for it to be such, presents some difficulties. In fact, if it were to know nothing, how could it be a divine thing, for it would be in the same condition as those who are asleep. And if it knows but in dependence on something superior to it, its substance will be constituted by potency and not the act of knowing and it

155 The present chapter is connected to chapter seven in studying the nature of the divine intelligence. The conclusion which was reached there is that the divine intelligence is an act, a thinking of thinking as has already been said in part. To this thesis chapter IX moves through successive stages that Schwegler has distinguished nicely as follows. (1) Divine thought thinks without interruptions or changes; (2) divine thought thinks that which is better; (3) divine thought does not think anything outside itself or superior to itself, otherwise it would be a mere potency to think and not thinking in act; (4) therefore, the thought thinks itself and it is a thinking about thinking.

156 Tricot distinguishes the difficulties discussed in this chapter into the following six questions: (1) does intelligence think nothing? (11.17-18); (2) does it think something other than itself? (11.18-21 and 28-33); (3) what does it think? (11.21-27 and 35-55); (4) how can it think itself? (11.35-36 and 38-a5); (5) is its excellence found in thinking or being an object of thought? 911.37); (6) is its object of thought composed? (1075a5 to the end) (Cf. op. cit. II, p. 699 note). More simply these problems can be reduced to four: 1) what does the intelligence think about?; 2) what is the nature of the divine thought?; 3) how can the intelligence think itself?; 4) is the object of divine thought simple or not?

157 The text reads: "τὸν φιλοσόφου θεότατον" Bonitz clarifies the meaning of this expression flawlessly (II, p. 515) The divine things that are "manifested" to us (to our senses) are the celestial bodies (we have already seen this concept expressed at the end of the preceding chapter). Now Aristotle says the divine intelligence is quite different and more divine than celestial bodies.
would not be the most excellent substance; because it derives its value\textsuperscript{159} from knowing.

Again, whether its substance is the capacity of knowing or the act of knowing, what does it know? Or does it know itself or something other than itself; and if it knows something other either it knows the same thing always, or always something diverse. But does it make any difference or not, whether it knows that which is beautiful or anything whatever? Or is it absurd for it to know certain things? It is evident, in effect, that it knows that which is divine and worthy of honor and the object of its knowledge does not change: change, in fact, is always for the worse, and this change would always involve a form of movement\textsuperscript{160}. In the first place, consequently, if it is not a knowing in act but a potency, logically the continuity of its knowing, for it, would be tiresome\textsuperscript{161}. In addition, it is clear that some-

\textsuperscript{159} It is evidently absurd to conclude that the divine knows nothing: if this were so, it would be like something asleep, and so its divine dignity would vanish.

\textsuperscript{159} If the divine mind were to depend on something superior as for example, the passive human mind does since it depends on the active, it would not essentially be an act of knowing, but only a potency to know. Thus, it would not be the mind that was the most excellent substance but rather that on which it was dependent.

\textsuperscript{160} The first step of the solution to the first problem: what does the intelligence know? The answer: insofar as the intelligence is concerned, it is the most divine thing, it thinks what is most divine and this is only that which does not change. If the intellect were to think what changes, it would change for the worse (in fact, it could not change for the better, given that it is the best already). Further, any movement such as the supposed movement of the object of divine thought implies a movement that would be incompatible with the absolute Immobility of God.

\textsuperscript{161} The first step in the solution of the second problem: how does the divine intelligence think? The answer: it must be a mode of thinking which is essentially an act, because if it were not so the continuity of thinking would constitute a weakness (everything which implies potency, to pass into act and to maintain itself constantly in act becomes fatigued), which condition would be absurd in God.
thing else must be more excellent than intellect i.e. the intelligible. The capacity of knowing and the activity of knowing will belong, in fact, even to the knower of the worst thoughts: therefore if this is to be avoided (in fact, it is better not to see some things than to see them); knowing cannot be the most excellent thing. If, therefore, the divine intellect is what is most excellent, it knows itself and its knowing is a thinking on thinking.

However, it seems that science, sensation, opinion and reasoning always have as an object something other than themselves, and only secondarily have themselves as object. In addition, if to know is other than to be known, in respect to which of these two does intellect derive its excellence? In fact, the essence of knowing and the essence of being known do not coincide. In reality, in some cases, the science

162 This affirmation is considered the final solution of the problem of the "omniscience", at least for the God of Aristotle (Cf. note 167).

163 The second step in the solution of the second problem: how does the divine intellect think? The answer: it is a mode of thinking that is essentially in act: if this were not so, the intelligible i.e. the object of its thought, would be better, insofar as it would become an act in virtue of this, and, then it would be the intelligible not the intelligence that would be the most excellent and divine.

164 The definitive step in the solution of the first problem: what does the intelligence think? The answer: the intelligence thinks itself, therefore it is the intelligence of the intelligènce or the thought of thought: it is thought thinking itself ( νοησις νοηθες ).
itself constitutes the object: in the productive sciences, for example, the object is the substance and the immaterial essence and in the theoretic sciences the object is given by the concept and the act of knowing itself. Therefore, since knowledge and the object of knowing are not diverse in the case of things that do not involve matter, they are identical and the divine intellect will be one with the object of its thought.\footnote{165}

There still remains a problem: whether the object of knowledge for the divine intellect is composite. In that case in fact the intellect would change, passing from one part of the whole to the other part of its object of knowledge. Or should we not say, rather, that what does not have matter is indivisible? And ought it not be said also that as it belongs

\footnote{165} Against the solution now acheived, Aristotle raises and resolves the following difficulty, which we numbered as the third in our list, it would seem that science, opinion and sensation fundamentally have the other as object, and themselves only secondarily; how, then, can the divine intelligence have itself as the object? The answer: Thought and the object of thought do not coincide except in the case of things without matter; for things that are devoid of matter the identification is possible as the theoretical sciences themselves have proven. Hence, intelligence insofar as it is immaterial can have itself perfectly as object i.e. be uniquely one and the same thing with the object of its thought.

\footnote{166} This is the fourth problem that we mentioned above, Aristotle deals with it as follows. The object of the divine intelligence is simple and not composed for the following three reasons. (1) If the knowable were composed, then, in passing from one part to the other of its object of thought, the divine intelligence would change; but the change would be incompatible with its immobility. (2) Insofar as it is immaterial, the object of the divine intelligence cannot have parts (because only material things have parts). (3) How the human intelligence, which is per se and prevalently discursive, achieves its best, is not in this or that part, but in the unitary intuition of the whole, thus the same is true more so for God, who for all eternity thinks and contemplates his own unitary essence.
to human intelligence or the intelligence of composite beings to be in some moment (it does not in fact possess its good in this or that object, but it has its supreme good in that which constitutes an indivisible whole, which is other than itself) so in this way, the divine intellect also is by thinking itself through all eternity

167 Let us see, now, all the conclusions achieved in chapters VII and IX concerning the divine thought. The God of Aristotle, insofar as he thinks of himself, does he know himself or also something else? In spite of the attempt of some scholars to attribute omniscience to the Aristotelian God, we reply in the negative. God does not know whatever is implicated in change, contingency or empirical particularity. God as we have seen, cannot think anything base; in fact "it is better...not to see certain things: and God thinks and contemplates only that which it is better to see and think (Cf. note 162). God is content with a contemplation of himself, because in him is the best of everything.

It is, however, not necessary because of this to go to the opposite extreme and deny to the Aristotelian God any knowledge of the world, almost to the point of affirming that God doesn't even know that there is a world. We saw in fact (Cf. Introduction, p. 28, that the first book of the Metaphysics explicitly attributes to God the knowledge of the supreme causes of things; hence, he knows the world, even if not in its particularity at least in its causes and principles. On the other hand, if God knows himself, he must necessarily be the being to which everything tends as a supreme end. On the contrary, in the third book of the Metaphysics, Aristotle even adds a critique of Empedocles because he attributes to God only knowledge of himself (Cf. 4,1000b3). The fact remains, nevertheless, without question, that individuals are, as such, neither objects of knowledge nor objects of concern or love on the part of God. God at best can know the species that are perennial insofar as the individuals perdure through generations and corruptions but not the singular. Only medieval thinkers, who rethought Aristotle in the light of their Christianity, could fill up these lacuna.
Chapter X

How nature possesses the supreme good and a critique of the opinions of preceding philosophers

It is necessary to inquire also in what way the nature of all possesses the good or the highest good: whether as something having existence separately in and for itself or as an ordered whole. Probably in both senses, as an army does. The good of an army consists in part in the order but the good is also in the general; rather more in the general than in the order. Because the general does not depend on the order but the order exists in virtue of the general.

All things have a certain order or arrangement which is unitary, but not in the same way, as the fishes, the birds, and plants; and the arrangement does not happen in a way that one thing does not have any relation with the others but in a way that there is something common. All things, in fact, are co-ordinated toward a single goal; thus, in one household, the freemen have the least freedom to act randomly instead they have most of their actions ordered, while slaves and animals contribute little to the common

The present chapter with which the twelfth book concludes consists of two parts which develop two different themes. In the first, Aristotle explains in what way the supreme good constitutes for everything, a profound and organic unity. In the second, on the contrary, Aristotle presents many sharp polemical arguments against preceding thinkers as well as contemporaries, with the sole purpose of confirming the soundness of the principles established in the course of the book.

The supreme good can be conceived as existing in three ways: (1) as something existing separately from the world and in and for itself; (2) as something immanent to things themselves or as the order of the world itself; (3) as both transcendent and immanent that is as combining the previous two modes. Aristotle proposes the third alternative as his solution. The good of the army, for example, is both the intrinsic order and, the general as well. Between the two modes of being of the good, however, a precise distinction operates: the first, in fact, is subordinate and dependent on the second. The order of the army, in fact, depends on the general and not vice versa. We will say, therefore, that there exists an immanent order of things, properly and solely because there exists a transcendent good which is the prime principal governor.
good and act for the most part randomly: this is in fact the principle which constitutes the nature of each thing.\textsuperscript{170} I mean, for example, that everything must tend to disintegrate while, from another viewpoint, everything tends to unity.\textsuperscript{171}

It is not necessary to ignore all the absurdities and impossibilities into which they fall who disagree with us, nor need we ignore what those who hold more subtle views say and what difficulties are minor in these doctrines.\textsuperscript{172} All in fact affirm that things are generated by contraries. But neither the affirmation: "all things" nor the other: "from contraries" is correct;\textsuperscript{173} and no one of them tell us how those things in which the contraries actually exist, are derived from the contraries, in fact, the contraries do not submit to acting upon each other. For us, the difficulty is resolved handily, by admitting the existence of a third term.\textsuperscript{174}

Other thinkers posit matter as one of the two contraries, as for example, those who propose the unequal as matter to the equal and the many to the one.\textsuperscript{175} But this difficulty is solved in the same way.\textsuperscript{176} Matter taken alone, is contrary to

\textsuperscript{170} Aristotle defines, here, how we are to conceive the order of the universe: it is not to be understood as an order that excludes plurality and diversity. The comparison with the order of a household or of the family is very significant. In a household, the freemen who constitute the highest rank, act constantly in function of a precise end; the slaves, on the contrary, and the animals contribute much less to the common good, and their actions are for the most part a loss to the house. So it is in the universe: the highest things contribute more to the common good. The heavens move with great regularity; in the realm, on the contrary, of the sublunary world, chance predominates, even by having in them a precise law (see Rolfoes,II,p.187,n.64). The whole is then perfectly co-ordinated and harmonized; diverse things even in the diversity of their natures, constitute a most beautiful unity.

\textsuperscript{171} This seems to me the only translation which in some way agrees with what precedes it, although it forces the text.

\textsuperscript{172} This sentence begins the polemical section of the rest of the chapter.

\textsuperscript{173} It is not true that everything is generated from contraries (for example, the heavens are subject to corruption or generation) nor is it true that everything is constituted from contraries (for example, the heavens are not formed from contraries).
nothing. Further, everything would, with the exception of unity, participate in evil; for, the evil itself would be one of the two elements.

Other philosophers, instead, state that neither good nor evil are principles; while, actually, in all things the good is the highest principle. Those who speak thus, speak correctly when they affirm the good is a principle, but they do not explain how the good is a principle: if as a final

Of those things in which there are contraries, these philosophers have offered sufficient explanation. The contraries, in fact, are not affected by each other, they do not act on one another. The contraries and their "actiona" are not explained except by reference to a third term, that is, the substrate in which they inhere. For example, that the white becomes black; but it is a given substrate that changes from white to black; sickness does not become health, but a man who is sick becomes healthy. The contraries, therefore, suppose a substrate or matter (see chapter 2).

Aristotle alludes here to Plato. Rather than positing the matter as a principle which is the substrate for contraries, he makes the matter itself one of the contraries: matter would be the unequal and the multiple, which is then opposed to the equal and to the one (which would correspond, instead to the form).

It is resolved not by making the matter one of the contraries but making it the substrate of the contraries.

Matter considered in itself, that is, considered without form is not the contrary of anything, matter and form, in fact, do not constitute a pair of contraries. It is the form and privation that are contraries, and they are found in all the categories.

Always for the Platonists, all things insofar as they participate in matter, also participate in evil, with the exception of the One (the material principle, in fact, coincides with the principle of evil). The thesis is inadmissible, insofar as St. Thomas notes, in the celestial entities, evil and corruption do not occur (St. Thomas, sec. 2643, p. 614).

Aristotle is speaking of the Pythagoreans and Speusippus (see Schwegler, IV, p. 290, n. 9).
cause or as a moving cause or as a formal cause.

Equally absurd is Empedocles theory: he, in fact, makes the good equal to love; and for him, it is a principle both as a cause of motion (since, it combines) and also as matter, (it, in fact, is part of the mixture). But, even if the identical thing happens to be a material principle and a moving principle, these would not have, in any way, identical natures.

According to which of the two senses, therefore, would love be the principle? It is absurd that strife be incorruptible: this, in fact, of itself constitutes the nature of evil.

Anaxagoras posits the good as a moving principle: the intellect, in fact, produces movement. However, it moves in view of an end, thus, this comes to be through another; unless it is in agreement with what we uphold: the medical art is, in a certain sense, health. It is absurd also not to provide the contrary to the good and to the intellect.

All those who affirm the contraries, do not then use the contraries, unless their thoughts are systematized.

It is just, therefore, to say that the good is a principle but more precisely, what type of principle and what kind of cause it is. Here Aristotle judges on the basis of his own doctrine of the four causes; on this basis, we know, he identifies the Good with the final cause.

Aristotle sees a contradiction here in Empedocles on the basis of his doctrine of the four causes, of course, Empedocles does not speak in these terms. Apart from this consideration it is very clear what the Stagirite intends to say.

That strife is incorruptible is absurd according to Aristotle for the following reasons. Among eternal and incorruptible things, evil has no place (Bk.IX, 9,1051a19). Now strife is evil, as such, it cannot be eternal and incorruptible but it must be corruptible, contrary to what Empedocles held.

Anaxagoras had made the good a principle of motion: the intellect in fact (which is the good) produces motion. But, it moves in view of an end; but the principle of motion then is different from the end, so that the intellect and the good would be diverse from the end, which is absurd. Aristotle does not identify the moving cause and the final cause as is done by Anaxagoras but the medical art and health (i.e. moving cause and final cause) in a certain sense, are ident-
Again, none of them explains why some things are corruptible and others incorruptible; they derive all things from the same principle. In addition, some derive beings from non-being; others avoid this absurdity but make all things one. Again, no one of them says why there must be generation always, and what is the cause of generation.

Moreover, those who admit two principles, must admit the existence of a third superior principle; thus, like the proponents of the Ideas they must admit another superior principle, but why, in fact, there is one or why do they participate, they do not explain?

For other philosophers, it is necessary to admit the existence of something as the contrary to wisdom or the highest knowledge, but for us it is not so. Because there is no

ical. The results would be clearer still if Aristotle had adduced his own example of the immobile Mover which is an efficient cause insofar as it is an end or final cause.

It is not clear what Aristotle's point is here in criticizing Anaxagoras. Bonitz correctly notes; "Quid enim? Nonne pariter et eodem quidem iure vos à μίνη, quern ponit Anaxagoras, ab omni contrarietate et oppositione immunis sit, ac primus motor apud Aristotelem?" (II,p.522).

That is unless one does not help them by explaining and clarifying what they say only confusedly (εἰς μή). It is clear that the "all things" derived from the same principles ought to be either equally corruptible or all equally incorruptible, and not some corruptible and others incorruptible. Aristotle avoids this contradiction by admitting that corruptible things have matter which is different from that of incorruptible things: the heavens, in fact, have a matter called aether or the fifth essence.

The poets and the naturalists, who make all things derive from chaos and night (See chapter 7).

Parmenides and the Eleatics.

As was done by Aristotle in chapters 6 and 7.

Those who admit the existence of two contrary principles, ought then to admit a third and superior principle that is the moving cause (See chapter 4).

The same can be said against all those who admit the existence of the Ideas. It is necessary to admit, other Ideas, a moving cause or principle that makes the sensible things participate in the Ideas, that is, which mediate form and matter.
contrary to wisdom: all contraries involve matter and things with matter exist in potency; ignorance which is contrary to supreme knowledge would tend to the object which is contrary to that of supreme science, instead of to primary being which has no contrary 194.

Even if there were nothing else but sensible things there would be no first principle, neither order, nor generation, nor movement of the heavens and there would always be a principle of a principle, as in the accounts of all the Theologians and Physiologists 195.

And if the Ideas or Numbers are to exist, they will be the causes of nothing, or, at least, they would not be the cause of movement 196. Besides, how can magnitude be derived

192 Some think that Aristotle alludes here to the Theologians (e.g. Alexander p.719,22) others think to Plato himself (Tricot,II,p.717 n.3).
193 If the allusion is to Plato, it can only be the doctrine found in the Republic V,477 where the supreme science of being is opposed to the ignorance that has as its object non-being.
194 According to Aristotle, it is not necessary to oppose the supreme ignorance to the supreme knowledge. In fact, contrariety has a place only in things having matter, because matter is, on the contrary, the potency to the two contraries. But the primary beings are absolutely devoid of matter, and therefore have no contraries. Hence, there will be no supreme ignorance— which was mentioned — because it would be precisely the opposite contrary to the supreme being, which does not exist.
195 A beautiful phrase which in its conciseness summarizes the foundation on which the metaphysical thought of Aristotle rests. If only sensible beings exist, a primary principle would not exist, because all would be, for the same reason, a principle, and things would be derived from other things to infinity (as happens in the doctrines of the Theologians and Naturalists). There would not even be an order: as is seen, in fact, at the beginning of this chapter itself, how the immanent order of things needs a transcendent principle beyond its effect (the order of the army needs a general). There would be no generation: this, in fact (Chapter VII) depends on the precise order of the heaven, which also depends on a primary principle. There would be no celestial movements, because--as we know--the movements of the heavens depends on the supersensible substances and in its totality on the absolutely primary Mover.
and extension from that which has no magnitude\(^1\) The number does not produce extension neither as an efficient nor as a formal cause\(^2\).

But further, no contrary can act as a moving or efficient cause: in fact, it may possibly not be. At least, its act may be posterior to its potency. Then, it would not be eternal\(^3\). And, instead, they are: we need, therefore, to eliminate some of the preceding affirmations. In whatever way it has been stated\(^4\).

Without the supersensible substances, therefore, the sensible is not explained. Consequently, who eliminates the supersensible substances, destroys all possibility of giving a reason for the sensible.

It will be said that the Platonists do not satisfy any of the necessary features of the world by positing the Ideas and Ideal Numbers as supersensible entities. But Aristotle objects, the Ideas do not give the reason for the sensible: they do not exist, in fact, they cause nothing, certainly not movement (See Met. I, 1, 981b9; XII, 6, 1071b15).

Another contradiction of the doctrine of the Ideas and Ideal Numbers: both Ideas and Numbers are immaterial and hence unextended. But extended bodies and magnitude must be derived from the Ideas. It is clear that from that which has no extension nor magnitude, it is absurd to derive extension and magnitude. (See, also Metaph. III, 4, 1001b17 and IX, 8, 1083b11).

Because they cannot function as efficient and formal causes and because extension and magnitude, in any case, are not derived from efficient and formal causes.

A repetition of the critique of the doctrine of the contraries.

If the contraries are posited as principles (for example, the Equal and Unequal, Good and Bad etc.), they are not adequately explained by efficient causality; in fact, the contraries imply matter, and matter involves potentiality and it is always a potentiality to either be or not to be. Hence whatever implies potency can also not be or if it is, its act is consequent on its potency. (That is true—we will see—for all sensible things) and in this way eternal moving substances cannot exist.

But says Aristotle, from the moment that there are eternal moving substances, it is necessary to correct the doctrine of the contraries in the sense seen in 6, 1071b22. They need a principle i.e. a pure act, devoid of potency or matter.
Further, no one says, in any way, why numbers form a unity, or soul and body are totally one and thus form and the thing; nor is it possible for them to say it, at least, not to admit, as we do, that the moving cause produces it.

Those who maintain that the principle is mathematical number and affirm that there is a succession of substances without end, and that for every substance there are diverse principles, making of the whole of reality, a series of episode (now, no substance, in fact, by its existence or non-existence exercises an action on another), and they

202 Numbers, in fact, are formed from a plurality of unit-ies, then how is it that when we posit "five", what is constituted by the five unities is a certain unity and not a mere aggregate?

203 How is that body and soul, form and matter constitute a whole?

204 Aristotle's solution is as follow: body and soul, matter and form are structurally a unity, because form does not exist independently of matter. But if a "cause" of their unity can be adduced, this can only be an efficient cause, which makes the matter pass from potency to act (Met. 6, 6, pass.)

205 Referring to Speusippus, who held the position that the distinction of the three levels of being—Ideas, Ideal Numbers and Sensible things—was insufficient and he added later distinctions of Numbers, Magnitude and Soul. He also admitted for each of these classes, the existence of distinct and diverse principles.

206 The reproach of Aristotle is as follows: by multiplying the distinctions and principles as done by Speusippus, it makes of the universe a species of broken episodic rhapsody i.e. if it has not completely lost its unity.

207 Speusippus does not admit, in fact, the influence of one substance on another; if this were so, the existence at least of one substance would not involve any influence on another.
admit many principles; but things do not wish to be governed badly, "the governing by the many is not good: the governor should be one".

See note 205—the plurality of principles signifies for Aristotle an evil rule or government.

Homer, Iliad, v 204
One army--comments Alexander--one commander, one God. This is the clearest and indisputable re-affirmation of the monotheism and the unity of the Aristotelian God. The affirmations of chapter VIII are to be read and understood only from this perspective. If Aristotle affirmed the existence of other supersensible substances or of the other "intelligent movents" besides God, he affirmed them as subordinate to God. Things and sublunary movements and celestial motion depend on principles immanent to sensible things themselves; these depend on supersensible movent substances and in their totality they are governed by God. These "movent substances" for some critics create grave problems, they seem a departure from the rigorously hierarchical conception of the universe proposed by Aristotle. These celestial spheres are moved with respect to an end i.e. through attraction to their perfection and God moves directly the first heaven, and mediate­ly the whole universe as the supreme object of love.

"On this principle depends the heaven and nature". Heaven and nature depend, therefore, on the supreme object of love. Dante will write: "Amor che muove il sole e l'altre stelle" (Paradiso XXXIII) [Love which moves the sun and the other stars, trans. note].
The Contents of the Fourteen Books of the *Metaphysics*

Let us close the present work with a brief description of the themes of the different books of the *Metaphysics* and with an analytical summary of the twelfth; each will permit us to present a synthesis in outline of the whole.

The first book defines the concept of wisdom (which is nothing other than first philosophy or metaphysics) as the science of the supreme causes and principles and it establishes that these causes are four in kind. Through an analysis of the doctrines of the Naturalists and Platonists Aristotle shows, historically, that the causes and the principles can only be four neither more nor less. The bulk of the book is taken up by this analysis of the doctrines of his predecessors and the criticism which Aristotle levels against them.

The second book is quite short and appears as almost an appendix to the first. It defines philosophy as the science of truth and reduces it to the science of the causes; it demonstrates speculatively that the causes are necessarily limited: both with respect to kind and number. The last chapter, finally, presents some comments on method.

The third book presents a series of complex difficulties or aporias (fifteen in the current numbering), which state all the metaphysical problems that Aristotle is going to settle but in a non-systematic mode in the course of the remaining books.

The fourth book defines metaphysics as the science of being qua being and treats of the principle of non-contradiction which is the supreme principle of being (as well as of thinking).

Aristotle provides a detailed defense of this principle, it consists in the refutation of the doctrines of those philosophers who have denied it. The principle of non-contradiction --let us remember-- cannot be demonstrated, because the principle is absolutely primary; the only demonstration is the refutation of one who denies it; it would seem that he who denies it, in some way, affirms that which he denies.

The fifth book is a kind of metaphysical lexicon or vocabulary. It studies some of the principal terms that are used in the metaphysical inquiry, showing the diverse meanings with which they can be understood.

The sixth book returns to defining the concept of metaphysics in comparison with the other two theoretical scienc-
es; mathematics and physics. It lists, successively, the four meanings of being and examines the first two (being as truth and accident) in order to demonstrate that they fall outside the metaphysical inquiry.

The seventh book enters into the middle of a discussion which examines the principal signification of being i.e. substance. Substance is examined as matter, as form or essence and as composite. In the final chapter the Platonic Idea and the universal are shown not to be substance.

The eighth book is a complement to the seventh and inquires into substance again, but with particular regard to sensible substance and in function of the concepts of act and potency.

The ninth book is a treatment of potency and act, which is done minutely and in detail.

The tenth book treats the notion of unity and multiplicity and a group of concepts reducible to these or derivable from these.

The eleventh book presents a summary of the preceding books (in particular of the first, third, fourth and sixth), and also contains some extracts from the Physics. Its function is, probably, to present a general overview primarily to prepare for the most important considerations, that of God, in the next book.

The twelfth book after a recapitulation of the doctrine of sensible substance, demonstrates the existence of the unmoved Mover, that is, God, studying its nature and its relations with the world.

The last two books thirteen and fourteen—consist of a series of criticisms of Platonic and Pythagorean doctrines and they have the aim of proving negatively, in a certain sense, critically, the doctrine on supersensible substance found in the twelfth book.
Summary of the Contents of the Twelfth Book

The twelfth book, together with the seventh undoubtedly contains the most profound and original thoughts of Aristotle although the twelfth is more so than the seventh. We could say that the twelfth contains, fundamentally, the whole metaphysics, in the sense that we have already seen. Traditionally, it has been considered as the cupola or the crown of the great edifice of Aristotelian first philosophy, and, in spite of the attempts made in recent times to understand it in a totally different way, this judgment is substantially correct.

Here are the contents, distinguished according to the order and the divisions of the chapters.

Chapter I

The metaphysical inquiry is a search for the causes and principles of substance; the substances are, in fact, the fundamental being and because of this, only concerning them is it possible to inquire into the causes and principles. That substance is the principal being follows a) from the fact that in whatever way it is considered the whole, (in its totality or according to the series of the categories), substance is always that which is primary; b) from the fact that, strictly, everything which is not substance is said to be only mediately and in reference to substance; c) from the fact that only substance has existence independently and in itself; d) from the fact that even the ancient philosophers recognized in a practical manner this priority of substance.

There does not exist only one kind of substance, but three different kinds: a) sensible corruptible substance (animals, plants, etc.); b) sensible incorruptible substance (the heavens); c) supersensible, immobile and eternal substance (not admitted by everyone, or else understood in different ways by those who admit their existence).

The study of these three kinds of substances enter into the scope of different sciences: the first two are within the competence of physics (i.e. physics and astronomy), the third belongs to first philosophy or metaphysics.

Aristotle will take up the sensible substance and its principles in chapters II, III, IV, V, and he will demonstrate the existence and nature of supersensible substance in chapters VI, VII, VIII, IX and X.

Chapter II
The special character of sensible substance is that of being the subject of change. Change always occurs between contraries and supposes, as a condition, that something exists as a substrate, passing from one contrary to the other: this is matter.

The changes are of four kinds: a) according to substance (generation and corruption), b) according to quality (alteration), c) according to quantity (increase and decrease), d) according to place (local motion); these four kinds of change take place, hence, between contraries which are proper to any of the four above-mentioned categories.

The matter, which is that which changes by passing from one contrary to the other, is in potency to a contrary, and it is precisely because of this that it can change. That which changes, hence, changes by passing from potency to act, according to each category (from substance in potency to substance in act, from white in potency to white in act, and so on). Thus we can say that everything is derived from being (in potency), but we can also say that everything is derived from non-being, because potency is non-being in act. The concepts of matter and of potency were also vaguely glimpsed by the ancient philosophers (Anaxagoras, Empedocles, Anaximander, and Democritus).

Matter is hence the indispensable condition (sine qua non) of becoming. If matter is destroyed, becoming is simultaneously destroyed. Matter, however, is diverse for diverse kinds of change. Celestial bodies, which have only local motion in place, have a matter capable of only this change and devoid of any other.

If it is true that generation takes place through potency it is also true however that it is not from any potency that generation takes place.

Different things are generated from different matter and potency.

Conclusion: there are three principles of change: the two contraries and matter, in particular, for generation and corruption (that is, for change according to substance) there are three principles: form, privation of the form, and matter.

Chapter III

As principle of change, matter does not change, in the sense that it is neither generated nor corrupted.
The **form** as well, which is the **fundamental principle** of change, is neither generated nor corrupted.

Another principle, necessary because change occurs, is that which produces the change itself, that is, the **moving principle**. The moving cause of any substance is always another substance which has the same name and the same nature. This is correct for natural substances and their generation (man generates man, a horse generates a horse, and so on), also for artefacts and artistic productions. (the material house is derived from the house and this is in the ultimate analysis, the same art which constructs the house). The causes of the other two forms of generation (one spontaneously and one casual) are only given by "privation" or "lack" of the first.

Because sensible things are matter, form and the composite of matter and form, "substance" will be both matter and form and the composite of the twl, (but, obviously, by a different title).

Admitting that the form is substance does not mean, therefore, to affirm that it is cut-off or separate from things and existing in and for itself. Certainly the form does not exist apart from things, for example, from the artefacts (the form of house does not exist separately from the concrete house). Moreover, the separate existence of the form of natural substances is supposed but, this also, is a thesis which is incorrect. Outside of things, the **form**, or **formal cause** does not exist, but only the efficient cause.

The soul, that is, a part of soul may continue to exist apart, after the corruption of the body; but, because of this, it is not necessary to admit the existence of forms separate from things, as the Platonists do.

**Chapter IV**

The principles of diverse things are in one way, **different** and, in another sense, the **same**.

The principle of different things are different; a) in fact, the different categories cannot be derived from common superior principles, because, beyond the categories, there does not exist anything common; nor can a category be an element or a principle of another thing. b) Again, because the elements are different that which is derived from them is also and because the things to be explained either are substance or qualities or one of the other categories, it is clear that the principle cannot be categories themselves. c) Finally, it is impossible to make of substance and unity, the
elements of everything as the Platonists do, because all things are substances and one, while, we know, that the elements are different than that from which they are derived.

The principles of different things, are the same. If in the concrete the principles of diverse things are diverse, they are the same through analogy. Everything, in fact, has a form, a privation, and a matter: concretely diverse, yes, in differing substances but identical when considered conceptually.

The causes and the principles of things can be intrinsic or extrinsic to the same things. "Elements" are the intrinsic causes and principles, for example, the matter, the form, and privation; the moving principle, on the contrary, is extrinsic.

As for the elements, so also for the moving cause and principle, one can say (a) that they are concretely diverse for diverse things; (b) but analogically they can be considered the same for all things.

The four causes (form, privation, matter, the efficient principle) can be reduced to three, if one keeps in mind the fact that the moving cause always has the same form as the thing produced (man generates man; the form of house, the concrete house). The formal cause, however, does not entirely absorb the efficient cause.

Besides the causes spoken about previously, there is then a cause which is universal in the sense of the highest cause: the absolutely primary being which moves all things (God).

Chapter V

The principles are the same for all things in this sense: everything which is not substance exists only in substance or in reference to it, so the causes of substance by that fact are the causes of all the rest.

The principles of all things are, again, act and potency and, these are so analogically. Act and potency are diverse according as they are found in diverse things and are also diverse according as they consider under diverse aspects, the same things. It is possible to reduce the cause as distinguished above to potency and act; the form and privation are reduced to act; matter to potency. The efficient cause is in one sense, act, while in another sense, potency; "potency not in the sense in which matter is potency, but the sense of the principle of movement in another", that is,
in the sense of the capacity to act. Efficient causes of
geneneration are in addition to the proximate causes (father
with respect to the child), the remote causes is the sun on
its oblique orbit (and these are potential in the sense
indicated above).

It is clear, on the basis of the points established that
the "universal causes" as those claimed by the Platonists do
not exist: universal causes can only be the cause of things
that are universal: but, things "which are universal" do
not exist.

To summarize: the causes are the same for all things, (a)
in an analogical sense (on the one hand, besides analogically,
and generically, as well as specifically, when the things
are of the same species); (b) in the sense that the causes
of substances are causes of everything, because to destroy
substance is to destroy everything; (c) finally, because the
absolutely primary principle is identical for all things, it
is the cause of everything.

The causes are, on the contrary, diverse for diverse
things, considered in particular and in the concrete (that
is in act); for example, this particular form, this particu-
lar matter, this particular efficient cause.

Chapter VI

Having examined sensible substances in their causes and
principles and elements, we must determine that supersen-
sible substance exists and determine what is its nature.

Substances have priority before all the other modes of
being (See, Chapter I). For if they were all destructible,
the indestructible would not exist. But time and motion
are certainly incorruptible. In order to explain the exist-
ence of incorruptible motion which is both eternal and con-
tinual it is necessary to posit the existence of a primary
movement. This principle, in order to produce an eternal
motion, must be eternal and to produce a continual motion,
it must always be in act. The essence of the primary movent
will be therefore, pure act, eternal, devoid of matter or pot-
ency.

Against these conclusions, the contrary observation might
be made that in things it is potency and not act which is
primary, while according to the reasoning above, act is prior.
The observation of the priority of potency in things, is true
if limited to the perspective of individual things, it is
false, if it is made into a general principle: a thing is
first in potency and then it is
in act; but, in order for it to be in act, it presupposes a cause already in act as a necessary condition. The matter and the potency do not actualize themselves, they necessarily presuppose the efficient cause in act. The Theologians and the Naturalists are mistaken, in thinking that they can derive everything from night and chaos (which are in potency) this could not happen without a cause already in act.

It is for this reason the Leucippus and Plato suppose an eternal act, for they say that there is always movement. The priority of actuality in a certain sense is also asserted by Anaxagoras and Empedocles (by admitting, respectively, mind and the force of love and strife).

Therefore Chaos and Night did not exist for an infinite time, but the same things have always existed since actuality is prior to potency. In the world there is always generation and corruption and there are also things always happening in a constant cycle. How can we explain all this? The cause of the constant cycle of the things in the world is something which acts always in the same way—and this is the first heaven--; the cause of the generation and corruption is, on the contrary, something which is always acting in different ways—and this would be the sun which in its motion, on an oblique circle, periodically draws near and recedes from the earth—. Together the oblique orbit and the first heaven explain generation and corruption and its regularity.

Chapter VII

The first heaven, which moves with a continual and eternal motion, cannot move itself, because that which is in motion is moved by another; it is necessary, therefore, that there be a primary principle which moves while remaining immobile.

But how can this principle move without being moved itself? It moves as an object of desire and love, that is, as a final cause. It is therefore absolutely immobile. It cannot be in any way other than as it is: it is, therefore, necessary.

Heaven and nature depend on this principle. And it is life a life which is the best and perfect. It is a thought and in so far as it is perfect, it thinks only that which is perfect; but it itself is perfect; therefore, it thinks itself; and, thus, intelligence itself takes the place of the intelligible, so that, in it, intelligence and the intelligible are identical. Its life is, therefore, this activity of thinking and in this activity is its highest happiness. And this is the nature of God.
God is also supremely beautiful and good. The Pythagoreans and Speusippus are incorrect, thus, in denying that beauty and goodness are to be found in the primary principle, because, these qualities would only seem to be present in the things which are derived from the principles and not in the principles themselves.

But this conclusion proceeds from an incorrect understanding of things; the principles of substances are themselves actual substances, hence they contain those same perfections as the substances which produced them.

God, then, cannot be a quantity, he is without parts, indivisible, immutable and inalterable.

Chapter VIII

There is only one supersensible substance but may there also be others?

The philosophers have given no reply to this question, or they have given it in an imprecise way. It will be necessary, therefore, to analyze the question completely.

There exists, as we have seen, a primary mobile (the heaven of the fixed stars, whose movement produces the succession of day and night) and it is moved by the primary movement. But, in addition to the movement of the heaven of the fixed stars, there also exists the motion of the planets which are eternal; these motions demands eternal supersensible substances to move them. How many substances are required? As many as there are movements. How many movements are there? Only one sphere is needed to move the fixed stars... but for the planets that alone is not sufficient, that is, the number of the spheres equal the number of planets, in order to explain some irregularities and changes of position that can be seen, it is necessary to suppose different spheres for each of them, the motions of the spheres in combination with the loss of place (retrograde motion) gives us the results we observe. How many movers are necessary in order to explain the movement of the planets by the spheres? Eudoxus held as necessary three spheres for the moon and three for the sun, and four for each of the other planets therefore the total is twenty-six spheres. Callippus maintained as necessary the addition of two more spheres to the moon and the sun, and one more to the four spheres necessary for Mars, Venus, and Mercury totalling therefore thirty-three spheres. But, to the spheres of Callippus ( Aristotle says ) it is necessary to add spheres with a retrograde motion in order to neutralize the influence of the motions of a planet on its successor; the moon, as...
the ultimate planet, does not require such an addition, Saturn and Jupiter require three each and all the rest (Mars, Venus and Mercury) require four. The total number of spheres added by Aristotle are twenty-two and thus the completed number is fifty-five (the thirty-three of Callippus and the twenty-two of Aristotle with a retrograde motion).

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<thead>
<tr>
<th></th>
<th>Eudoxus</th>
<th>Callippus</th>
<th>Aristotle</th>
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<tbody>
<tr>
<td>1-Saturn</td>
<td>4</td>
<td>4</td>
<td>4+3 counteracting</td>
</tr>
<tr>
<td>2-Jupiter</td>
<td>4</td>
<td>4</td>
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<tr>
<td>3-Mars</td>
<td>4</td>
<td>5</td>
<td>5+4</td>
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<tr>
<td>4-Venus</td>
<td>4</td>
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<tr>
<td>5-Mercury</td>
<td>4</td>
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<tr>
<td>6-Sun</td>
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<tr>
<td>7-Moon</td>
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<td>26</td>
<td>33</td>
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If there are 55 spheres then there must be 55 supersensible substances, no more no less, because no other celestial motions exist unless they are involved with the motion of the stars, so no other supersensible substances exist to account for these eternal motions. The supersensible movents are perfect and exercise final causality.

The plurality of motions and movers does not destroy the unity of the heavens. The supersensible movers are ordered to one another and have the unity of a series, thus there is a first, second etc.. It is this unity of the supersensible substances that orders and unifies the heavens that depend on them.

That the heavens are eternal and divine has been handed down in the form of a myth with many superstitious additions, but that the primary substances are divine is indeed an inspired utterance preserved as a relic of former knowledge. To this extent only, then, are the views of our ancestors intelligible to us.

Chapter IX

Aristotle says that God and its life is intelligent. The whole topic of intelligence or the possession of mind is fraught with difficulties. Among them is: a) what does a divine intelligence think? b) what is the nature of a divine intelligence? c) how can it think itself? d) is what it thinks simple or complex?

a) It is clear that if God is an intelligence, it cannot be said to think nothing, otherwise it would be like something that is asleep. It is also evident that the divine intel-
ligence cannot be said to depend on something superior to it because in that case it would not be the best substance.

The mind knows only that which is most divine and which does not change; for the change would be for the worse and this change would also imply a kind of change in God, whereas God is absolutely immobile.

(b) The nature of the divine intelligence is that it is a pure act, an act which excludes any potentiality: if this were not so the continuity of its knowing would imply that it were tiring, which would be absurd in God. In addition, if this were not so, the object of its knowledge would be more worthy of honor than the act of knowing and it would be best (the object).

(c) The divine intelligence being most excellent cannot know anything but itself; it is a self-thinking thought. The identity of knower and known, in the divine intelligence, is possible because anything which does not involve matter is capable of the identity in question and supersensible substances are absolutely without matter. The divine intelligence is, therefore, identical with itself as its own object of knowledge.

(d) The object of divine thinking is indivisible: its immateriality implies necessarily, its simplicity. Just as the human intelligence achieves its optimum not in the activity of its discursive part but in its comprehensive knowledge of everything that is, in the immediate grasp of the unity of things; the same hold, even more clearly, for the divine intelligence. The divine intelligence knows itself in its simplicity and unity for eternity and in this activity is its goodness!

Chapter X

How does the good or the supreme good exist? Is it present as something separate and independent or is it immanent as the orderly arrangement of the parts of the universe?

The supreme good probably exists in both ways: as the immanent order in things and as the transcendent principle; for example: the good and the supreme good of an army is both the intrinsic order and, also and chiefly, the general (who, in the ultimate analysis is the cause of order). The order of the universe is comparable to the order of a household: in diverse measure and in different ways, individual things contribute to the order and the good of the whole, as for example, the animals and the slaves, the freemen and
the head of the family, they contribute in diverse ways and in diverse measures for the good of the household.

That the first principle and the causes and elements of things are those established and no other, in a certain sense, is confirmed by the absurdities that those philosophers who affirm other principles fall into.

All those, for example, who derive everything from contraries. What they say is not true because not everything derives from contraries, and for those which they do derive from it, this does not occur in the way that they explain: besides the contraries, in fact, there would have to be the matter (chapter 2).

The opinion of those who admit matter but make it one of the contraries is in error; matter is the substrate of the contraries, not one of the contraries. It is also an error to identify evil with matter and make, consequently, a principle of everything except of one, evil itself.

The opinion of those philosophers who make good and evil principles, is at the least inaccurate, but by affirming that the good is above all a principle; they, however, do not explain on what ground the good may be called a principle.

The doctrine of love and strife of Empedocles involves contradictions: love or friendship should be both a moving cause and a material cause because it is part of the mixture. It is also absurd that strife be incorruptible.

The doctrine of nous of Anaxagoras is also not free of contradiction: it must be both a moving and final cause, but how that can be is never explained by Anaxagoras.

No one then has explained the reasons by which from the same principles, they derive, both corruptible and incorruptible substances because from the principles themselves, they could not derive, in fact identical substances. In addition, it is absurd to derive being from non-being, as the Theologians and the Naturalists do, and it is equally absurd to reduce everything to unity as do the Eleatics.

Those who admit the existence of the Ideas or separate forms, cannot explain reality, if, besides the Ideas they do not admit a superior principle, which makes the participation of things in the Ideas possible.

The Platonists, then, on the basis of their principles must admit the existence of something contrary to the supreme
science. But there is nothing contrary to the supreme science: it is, in fact, the science of primary being, and nothing is contrary to primary being.

The primary supersensible principle, demonstrated above (chapters 6-7) is indispensible for explaining reality: if the supersensible does not exist, in fact, there would be no principle, nor any order, nor generation, nor movement of the heavens; but of the principles there would be always other principles and on to infinity, and this is the doctrine of the Naturalists.

The existence of the Ideas and the Ideal Numbers, upheld by the Platonists, are useless, because they are not the causes of things or at least, they are not the causes of motion. In addition, from unextended numbers, neither magnitude nor extension can be derived, as the Platonists attempt.

The Platonists, in addition, do not explain how the Numbers constitute a unity, nor how matter and form, soul and body constitute a unity.

Finally, the opinion of Speusippus is in error, which admits a plurality of kinds of substances and a plurality of principles. This plurality signifies a fragmented reality, made into a plurality of "episodes" and it introduces an evil arrangement into things: the government of the many, in fact, is not very good, there should be the rule of only one.

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