

METAPHYSICS
Aristotle
Translated by W. D. Ross

BOOK I (*A*)

980a22-980a27 p. 1552

1 · All men by nature desire to know. An indication of this is the delight we take in our senses; for even apart from their usefulness they are loved for themselves; and above all others the sense of sight. For not only with a view to action, but even when we are not going to do anything, we prefer sight to almost everything else. The reason is that this, most of all the senses, makes us know and brings to light many differences between things.

980a28-980b25 p. 1552

By nature animals are born with the faculty of sensation, and from sensation memory is produced in some of them, though not in others. And therefore the former are more intelligent and apt at learning than those which cannot remember; those which are incapable of hearing sounds are intelligent though they cannot be taught, e.g. the bee, and any other race of animals that may be like it; and those which besides memory have this sense of hearing, can be taught.

980b26-981a12 p. 1552

The animals other than man live by appearances and memories, and have but little of connected experience; but the human race lives also by art and reasonings. And from memory experience is produced in men; for many memories of the same thing produce finally the capacity for a single experience. Experience seems to be very similar to science and art, but really science and art come to men *through* experience; for 'experience made art', as Polus says, 'but inexperience luck'. And art arises, when from many notions gained by experience one universal judgement about similar objects is produced. For to have a judgement that when Callias was ill of this disease this did him good, and similarly in the case of Socrates and in many individual cases, is a matter of experience; but to judge that it has done good to all persons of a certain constitution, marked off in one class, when they were ill of this disease, e.g. to phlegmatic or bilious people when burning with fever,—this is a matter of art.

981a13-981b9 p. 1552

With a view to action experience seems in no respect inferior to art, and we even see men of experience succeeding more than those who have theory without experience. The reason is that experience is knowledge of individuals, art of universals, and actions and productions are all concerned with the individual; for the physician does not cure a man, except in an incidental way, but Callias or Socrates or some other called by some such individual name, who happens to be a man. If, then, a man has theory without experience, and knows the universal but does not know the individual included in this, he will often fail to cure; for it is the individual that is to be cured. But yet we think that *knowledge* and *understanding* belong to art rather than to experience, and we suppose artists to be wiser than men of experience (which implies that wisdom depends in all cases rather on knowledge); and this because the former know the cause, but the latter do not. For men of experience know that the thing is so, but do not know why,

while the others know the 'why' and the cause. Hence we think that the master-workers in each craft are more honourable and know in a truer sense and are wiser than the manual workers, because they know the causes of the things that are done (we think the manual workers are like certain lifeless things which act indeed, but act without knowing what they do, as fire burns,—but while the lifeless things perform each of their functions by a natural tendency, the labourers perform them through habit); thus we view them as being wiser not in virtue of being able to act, but of having the theory for themselves and knowing the causes. And in general it is a sign of the man who knows, that he can teach, and therefore we think art more truly knowledge than experience is; for artists can teach, and men of mere experience cannot.

981b10-981b13 p.1553

Again, we do not regard any of the senses as wisdom; yet surely these give the most authoritative knowledge of particulars. But they do not tell us the 'why' of anything—e.g. why fire is hot; they only say that it is hot.

981b14-981b24 p. 1553

At first he who invented any art that went beyond the common perceptions of man was naturally admired by men, not only because there was something useful in the inventions, but because he was thought wise and superior to the rest. But as more arts were invented, and some were directed to the necessities of life, others to its recreation, the inventors of the latter were always regarded as wiser than the inventors of the former, because their branches of knowledge did not aim at utility. Hence when all such inventions were already established, the sciences which do not aim at giving pleasure or at the necessities of life were discovered, and first in the places where men first began to have leisure. This is why the mathematical arts were founded in Egypt; for there the priestly caste was allowed to be at leisure.

981b25-982a3 p. 1553

We have said in the *Ethics* what the difference is between art and science and the other kindred faculties; but the point of our present discussion is this, that all men suppose what is called wisdom to deal with the first causes and the principles of things. This is why, as has been said before, the man of experience is thought to be wiser than the possessors of any perception whatever, the artist wiser than the men of experience, the master-worker than the mechanic, and the theoretical kinds of knowledge to be more of the nature of wisdom than the productive. Clearly then wisdom is knowledge about certain causes and principles.

982a4-982a19 p. 1553

2 · Since we are seeking this knowledge, we must inquire of what kind are the causes and the principles, the knowledge of which is wisdom. If we were to take the notions we have about the wise man, this might perhaps make the answer more evident. We suppose first, then, that the wise man knows all things, as far as possible, although he has not knowledge of each of them individually; secondly, that he who can learn things that are difficult, and not easy for man to know, is wise (sense-perception is common to all, and therefore easy and no mark of wisdom); again, he who is more exact and more capable of teaching the causes is wiser, in every branch of knowledge; and of the sciences, also, that which is desirable on its own account and for the sake

of knowing it is more of the nature of wisdom than that which is desirable on account of its results, and the superior science is more of the nature of wisdom than the ancillary; for the wise man must not be ordered but must order, and he must not obey another, but the less wise must obey *him*.

982a20-982b10 p. 1554

Such and so many are the notions, then, which we have about wisdom and the wise. Now of these characteristics that of knowing all things must belong to him who has in the highest degree universal knowledge; for he knows in a sense all the subordinate objects. And these things, the most universal, are on the whole the hardest for men to know; for they are furthest from the senses. And the most exact of the sciences are those which deal most with first principles; for those which involve fewer principles are more exact than those which involve additional principles, e.g. arithmetic than geometry. But the science which investigates causes is also more capable of reaching, for the people who teach are those who tell the causes of each thing. And understanding and knowledge pursued for their own sake are found most in the knowledge of that which is most knowable; for he who chooses to know for the sake of knowing will choose most readily that which is most truly knowledge, and such is the knowledge of that which is most knowable; and the first principles and the causes are most knowable; for by reason of these, and from these, all other things are known, but these are not known by means of the things subordinate to them. And the science which knows to what end each thing must be done is the most authoritative of the sciences, and more authoritative than any ancillary science; and this end is the good in each class, and in general the supreme good in the whole of nature. Judged by all the tests we have mentioned, then, the name in question falls to the same science; this must be a science that investigates the first principles and causes; for the good, i.e. that for the sake of which, is one of the causes.

982b11-982b28 p. 1554

That it is not a science of production is clear even from the history of the earliest philosophers. For it is owing to their wonder that men both now begin and at first began to philosophize; they wondered originally at the obvious difficulties, then advanced little by little and stated difficulties about the greater matters, e.g. about the phenomena of the moon and those of the sun and the stars, and about the genesis of the universe. And a man who is puzzled and wonders thinks himself ignorant (whence even the lover of myth is in a sense a lover of wisdom, for myth is composed of wonders); therefore since they philosophized in order to escape from ignorance, evidently they were pursuing science in order to know, and not for any utilitarian end. And this is confirmed by the facts; for it was when almost all the necessities of life and the things that make for comfort and recreation were present, that such knowledge began to be sought. Evidently then we do not seek it for the sake of any other advantage; but as the man is free, we say, who exists for himself and not for another, so we pursue this as the only free science, for it alone exists for itself.

[... ch. 2 shortened; ch. 3-5, on pre-Socratics, omitted ...]

987a29-987b13 p. 1561

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

987b14-987b18 p. 1561

Further, besides sensible things and Forms he says there are the objects of mathematics, which occupy an intermediate position, differing from sensible things in being eternal and unchangeable, from Forms in that there are many alike, while the Form itself is in each case unique.

987b19-987b22 p. 1561

Since the Forms are the causes of all other things, he thought their elements were the elements of all things. As matter, the great and the small were principles; as substance, the One; for from the great and the small, by participation in the One, come the numbers.

987b23-987b35 p. 1561

But he agreed with the Pythagoreans in saying that the One is substance and not a predicate of something else; and in saying that the numbers are the causes of the substance of other things, he also agreed with them; but positing a dyad and constructing the infinite out of great and small, instead of treating the infinite as one, is peculiar to him; and so is his view that the numbers exist apart from sensible things, while *they* say that the things themselves are numbers, and do not place the objects of mathematics between Forms and sensible things. His divergence from the Pythagoreans in making the One and the numbers separate from things, and his introduction of the Forms, were due to his inquiries in the region of definitory formulae (for the earlier thinkers had no tincture of dialectic), and his making the other entity besides the One a dyad was due to the belief that the numbers, except those which were prime, could be neatly produced out of the dyad as out of a plastic material.

988a1-988a7 p. 1562

Yet what happens is the contrary; the theory is not a reasonable one. For they make many things out of the matter, and the form generates only once, but what we observe is that one table is

made from one matter, while the man who applies the form, though he is one, makes many tables. And the relation of the male to the female is similar; for the latter is impregnated by one copulation, but the male impregnates many females; yet these are imitations of those first principles.

988a8-988a17 p. 1562

Plato, then, declared himself thus on the points in question; it is evident from what has been said that he has used only two causes, that of the essence and the material cause (for the Forms are the cause of the essence of all other things, and the One is the cause of the essence of the Forms); and it is evident what the underlying matter is, of which the Forms are predicated in the case of sensible things, and the One in the case of Forms, viz. that this is a dyad, the great and the small. Further, he has assigned the cause of good and that of evil to the elements, one to each of the two, as we say some of his predecessors sought to do, e.g. Empedocles and Anaxagoras.

[... ch. 7-8, not dealing directly with Plato, omitted ...]

990a32-990b8 p. 1565

9 · Let us leave the Pythagoreans for the present; for it is enough to have touched on them as much as we have done. But as for those who posit the Ideas as causes, firstly, in seeking to grasp the causes of the things around us, they introduced others equal in number to these, as if a man who wanted to count things thought he could not do it while they were few, but tried to count them when he had added to their number. For the Forms are practically equal to or not fewer than the things, in trying to explain which these thinkers proceeded from them to the Forms. For to each set of substances there answers a Form which has the same name and exists apart from the substances, and so also in the case of all other groups in which there is one character common to many things, whether the things are in this changeable world or are eternal.

990b9-990b11 p. 1565

Further, of the ways in which we prove that the Forms exist, none is convincing; for from some no inference necessarily follows, and from some it follows that there are Forms of things of which we think there are no Forms.

990b12-990b14 p. 1565

For according to the arguments from the existence of the sciences there will be Forms of all things of which there are sciences, and according to the argument that there is one attribute common to many things there will be Forms even of negations, and according to the argument that there is an object for thought even when the thing has perished, there will be Forms of perishable things; for we can have an image of these.

[...]

991a20-991a31 p. 1566

But further all other things cannot come from the Forms in any of the usual senses of 'from'. And to say that they are patterns and the other things share them is to use empty words and poetical metaphors. For what is it that works, looking to the Ideas? Anything can either be, or become,

like another without being copied from it, so that whether Socrates exists or not a man might come to be like Socrates; and evidently this might be so even if Socrates were eternal. And there will be several patterns of the same thing, and therefore several Forms, e.g. animal and two-footed and also man himself will be Forms of man. Again, the Forms are patterns not only of sensible things, but of themselves too, e.g. the Form of genus will be a genus of Forms; therefore the same thing will be pattern and copy.

991b1-991b2 p. 1567

Again it must be held to be impossible that the substance and that of which it is the substance should exist apart; how, therefore, can the Ideas, being the substances of things, exist apart?

[... the rest of Book I (A) omitted ...]

METAPHYSICS - BOOK XII (*L*)

1069a18-1069a29 p. 1688

1 · Substance is the subject of our inquiry; for the principles and the causes we are seeking are those of substances. For if the universe is of the nature of a whole, substance is its first part; and if it coheres by virtue of succession, on this view also substance is first, and is succeeded by quality, and then by quantity. At the same time these latter are not even beings in the unqualified sense, but are quantities and movements—or else even the not-white and the not-straight would be; at least we say even these *are*, e.g. 'there is a not-white'. Further, none of the others can exist apart. And the old philosophers also in effect testify to this; for it was of substance that they sought the principles and elements and causes. The thinkers of the present day tend to rank universals as substances (for genera are universals, and these they tend to describe as principles and substances, owing to the abstract nature of their inquiry); but the old thinkers ranked particular things as substances, e.g. fire and earth, but not what is common to both, body.

1069a30-1069b3 p. 1689

There are three kinds of substance—one that is sensible (of which one subdivision is eternal and another is perishable, and which all recognize, as comprising e.g. plants and animals),—of this we must grasp the elements, whether one or many; and another that is immovable, and this certain thinkers assert to be capable of existing apart, some dividing it into two, others combining the Forms and the objects of mathematics into one class, and others believing only in the mathematical part of this class. The former two kinds of substance are the subject of natural science (for they imply movement); but the third kind belongs to another science, if there is no principle common to it and to the other kinds.

1069b4-1069b6 p. 1689

Sensible substance is changeable. Now if change proceeds from opposites or from intermediate points, and not from all opposites (for the voice is not-white) but from the contrary, there must be something underlying which changes into the contrary state; for the contraries do not change.

1071b3-1071b11 p. 1692

[... ch. 2 -5 omitted ...]

6 · Since there were three kinds of substance, two of them natural and one unmovable, regarding the latter we must assert that it is necessary that there should be an eternal unmovable substance.

For substances are the first of existing things, and if they are all destructible, all things are destructible. But it is impossible that movement should either come into being or cease to be; for it must always have existed. Nor can time come into being or cease to be; for there could not be a before and an after if time did not exist. Movement also is continuous, then, in the sense in which time is; for time is either the same thing as movement or an attribute of movement. And there is no continuous movement except movement in place, and of this only that which is circular is continuous.

1071b12-1071b22 p. 1693

But if there is something which is capable of moving things or acting on them, but is not actually doing so, there will not be movement; for that which has a capacity need not exercise it. Nothing, then, is gained even if we suppose eternal substances, as the believers in the Forms do, unless there is to be in them some principle which can cause movement; and even this is not enough, nor is another substance besides the Forms enough; for if it does not *act*, there will be no movement. Further, even if it acts, this will not be enough, if its substance is potentiality; for there will not be *eternal* movement; for that which is potentially may possibly not be. There must, then, be such a principle, whose very substance is actuality. Further, then, these substances must be without matter; for they must be eternal, at least if anything else is eternal. Therefore they must be actuality.

1071b23-1071b31 p. 1693

Yet there is a difficulty; for it is thought that everything that acts is able to act, but that not everything that is able to act acts, so that the potentiality is prior. But if this is so, nothing at all will exist; for it is possible for things to be capable of existing but not yet to exist. Yet if we follow the mythologists who generate the world from night, or the natural philosophers who say that all things were together, the same impossible result ensues. For how will there be movement, if there is no actual cause? Matter will surely not move itself—the carpenter's art must act on it; nor will the menstrual fluids nor the earth set themselves in motion, but the seeds and the semen must act on them.

1071b32-1072a4 p. 1693

This is why some suppose eternal actuality—e.g. Leucippus and Plato; for they say there is always movement. But why and what this movement is they do not say, nor, if the world moves in this way or that, do they tell us the cause of its doing so. Now nothing is moved at random, but there must always be something present, e.g. as a matter of fact a thing moves in one way by nature, and in another by force or through the influence of thought or something else. Further, what sort of movement is primary? This makes a vast difference. But again Plato, at least, cannot even say what it is that he sometimes supposes to be the source of movement—that which moves itself; for the *soul* is later, and simultaneous with the heavens, according to his account. To suppose potentiality prior to actuality, then, is in a sense right, and in a sense not; and we have specified these senses.

1072a5-1072a18 p. 1693

That actuality is prior is testified by Anaxagoras (for his thought is actuality) and by Empedocles in his doctrine of love and strife, and by those who say that there is always movement, e.g. Leucippus. Therefore chaos or night did not exist for any infinite time, but the same things have always existed (either passing through a cycle of changes or in some other way), since actuality is prior to potentiality. If, then, there is a constant cycle, something must always remain, acting in the same way. And if there is to be generation and destruction, there must be something else which is always acting in different ways. This must, then, act in one way in virtue of itself, and in another in virtue of something else—either of a third agent, therefore, or of the first. But it must be in virtue of the first. For otherwise this again causes the motion both of the third agent and of the second. Therefore it is better to say the first. For it was the cause of eternal movement; and something else is the cause of variety, and evidently both together are the cause of eternal variety. This, accordingly, is the character which the motions actually exhibit. What need then is there to seek for other principles?

1072a19-1072a36 p. 1694

7 · Since this is a possible account of the matter, and if it were not true, the world would have proceeded out of night and 'all things together' and out of non-being, these difficulties may be taken as solved. There is, then, something which is always moved with an unceasing motion, which is motion in a circle; and this is plain not in theory only but in fact. Therefore the first heavens must be eternal. There is therefore also something which moves them. And since that which is moved and moves is intermediate, there is a mover which moves without being moved, being eternal, substance, and actuality. And the object of desire and the object of thought move in this way; they move without being moved. The primary objects of desire and of thought are the same. For the apparent good is the object of appetite, and the real good is the primary object of wish. But desire is consequent on opinion rather than opinion on desire; for the thinking is the starting-point. And thought is moved by the object of thought, and one side of the list of opposites is in itself the object of thought; and in this, substance is first, and in substance, that which is simple and exists actually. (The one and the simple are not the same; for 'one' means a measure, but 'simple' means that the thing itself has a certain nature.) But the good, also, and that which is in itself desirable are on this same side of the list; and the first in any class is always best, or analogous to the best.

1072b1-1072b13 p. 1694

That that for the sake of which is found among the unmovables is shown by making a distinction; for that for the sake of which is both that *for* which and that *towards* which, and of these the one is unmovable and the other is not. Thus it produces motion by being loved, and it moves the other moving things. Now if something is moved it is capable of being otherwise than as it is. Therefore if the actuality of the heavens is primary motion, then in so far as they are in motion, in *this* respect they are capable of being otherwise,—in place, even if not in substance. But since there is something which moves while itself unmoved, existing actually, this can in no way be otherwise than as it is. For motion in space is the first of the kinds of change, and motion in a circle the first kind of spatial motion; and this the first mover *produces*. The first mover, then, of necessity exists; and in so far as it is necessary, it is good, and in this sense a first

principle. For the necessary has all these senses—that which is necessary perforce because it is contrary to impulse, that without which the good is impossible, and that which cannot be otherwise but is *absolutely* necessary.

1072b14-1072b31 p. 1695

On such a principle, then, depend the heavens and the world of nature. And its life is such as the best which we enjoy, and enjoy for but a short time. For it is ever in this state (which we cannot be), since its actuality is also pleasure. (And therefore waking, perception, and thinking are most pleasant, and hopes and memories are so because of their reference to these.) And thought in itself deals with that which is best in itself, and that which is thought in the fullest sense with that which is best in the fullest sense. And thought thinks itself because it shares the nature of the object of thought; for it becomes an object of thought in coming into contact with and thinking its objects, so that thought and object of thought are the same. For that which is *capable* of receiving the object of thought, i.e. the substance, is thought. And it is *active* when it *possesses* this object. Therefore the latter rather than the former is the divine element which thought seems to contain, and the act of contemplation is what is most pleasant and best. If, then, God is always in that good state in which we sometimes are, this compels our wonder; and if in a better this compels it yet more. And God *is* in a better state. And life also belongs to God; for the actuality of thought is life, and God is that actuality; and God's essential actuality is life most good and eternal. We say therefore that God is a living being, eternal, most good, so that life and duration continuous and eternal belong to God; for this *is* God.

[...]

1073a4-1073a13 p. 1695

It is clear then from what has been said that there is a substance which is eternal and unmovable and separate from sensible things. It has been shown also that this substance cannot have any magnitude, but is without parts and indivisible. For it produces movement through infinite time, but nothing finite has infinite power. And, while every magnitude is either infinite or finite, it cannot, for the above reason, have finite magnitude, and it cannot have infinite magnitude because there is no infinite magnitude at all. But it is also clear that it is impassive and unalterable; for all the other changes are posterior to change of place. It is clear, then, why the first mover has these attributes.

[... ch. 8 omitted ...]

1074b15-1074b34 p. 1698

9 · The nature of the divine thought involves certain problems; for while thought is held to be the most divine of phenomena, the question what it must be in order to have that character involves difficulties. For if it thinks nothing, what is there here of dignity? It is just like one who sleeps. And if it thinks, but this depends on something else, then (as that which is its substance is not the act of thinking, but a capacity) it cannot be the best substance; for it is through thinking that its value belongs to it. Further, whether its substance is the faculty of thought or the act of thinking, what does it think? Either itself or something else; and if something else, either the same always or something different. Does it matter, then, or not, whether it thinks the good or any chance thing? Are there not some things about which it is incredible that it should think? Evidently,

then, it thinks that which is most divine and precious, and it does not change; for change would be change for the worse, and this would be already a movement. First, then, if it is not the act of thinking but a capacity, it would be reasonable to suppose that the continuity of its thinking is wearisome to it. Secondly, there would evidently be something else more precious than thought, viz. that which is thought. For both thinking and the act of thought will belong even to one who has the worst of thoughts. Therefore if this ought to be avoided (and it ought, for there are even some things which it is better not to see than to see), the act of thinking cannot be the best of things. Therefore it must be itself that thought thinks (since it is the most excellent of things), and its thinking is a thinking on thinking.

[... ch. 10 omitted ...]