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from Thales to Aristotle

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ARISTOTLE

Aristotle was born of a well-to-do family in the Macedonian town of Stagira in 384 B.C. His father, Nicomachus, was a physician who died when Aristotle was young. In 367, when Aristotle was seventeen, his uncle, Proxenus, sent him to Athens to study at Plato's Academy. There he remained, first as a pupil, later as an associate, for the next twenty years.

When Plato died in 347, the Academy came under the control of his nephew Speusippus, who favored mathematical aspects of Platonism that Aristotle, who was more interested in biology, found uncongenial. Perhaps for this reason—but more likely because of growing anti-Macedonian sentiment in Athens—Aristotle decided to leave. He accepted the invitation of Hermeias, his friend and a former fellow student in the Academy, to join his philosophical circle on the coast of Asia Minor in Assos, where Hermeias (a former slave) had become ruler. Aristotle remained there for three years. During this period he married Hermeias's niece, Pythias, with whom he had a daughter, also named Pythias.

In 345, Aristotle moved to Mytilene, on the nearby island of Lesbos, where he joined another former Academic, Theophrastus, who was a native of the island. Theophrastus, at first Aristotle's pupil and then his closest colleague, remained associated with him until Aristotle's death. While they were on Lesbos the biological research of Aristotle and Theophrastus flourished. In 343, Philip of Macedon invited Aristotle to his court to serve as tutor to his son Alexander, then thirteen years old. What instruction Aristotle gave to the young man who was to become Alexander the Great is not known, but it seems likely that Aristotle's own interest in politics increased during his stay at the Macedonian court. In 340 Alexander was appointed regent for his father, and his studies with Aristotle ended.

The events of the next five years are uncertain. Perhaps Aristotle stayed at the court; perhaps he went back to Stagira. But in 335, after the death of Philip, he returned to Athens for his second long sojourn. Just outside the city he rented some buildings and established his own school, the Lyceum, where he lectured, wrote, and discussed philosophy with his pupils and associates. Under his direction, they carried out research on biological and other philosophical and scientific topics. Theophrastus worked on botany, Aristoxenus on music; Eudemus wrote a history of mathematics and

astronomy, Meno of medicine, and Theophrastus of physics, cosmology, and psychology. In addition, Aristotle and his group produced a monumental account of the constitutions of 158 Greek city-states—an account Aristotle draws on in his own *Politics.*

While he was in Athens, Aristotle's wife Pythias died. He subsequently began a union with a woman named Herpyllis, like Aristotle a native of Stagira. Although they apparently never married, they had a son, whom they named Nicomachus, after Aristotle's father.

Aristotle's work during his twelve or thirteen years at the Lyceum was prodigious. Most of his surviving works were probably written during this period. But when Alexander died in 323, Athens once again became a hostile environment for a Macedonian, and Aristotle was accused of impiety (the same charge that had been leveled against both Anaxagoras and Socrates). Leaving the Lyceum in the hands of Theophrastus, Aristotle fled northward to the Macedonian stronghold of Chalcis (his mother's birthplace); he is said to have remarked that he would "not allow the Athenians to sin twice against philosophy." Removed from the cultural center of Athens, he lamented his isolation and died in 322 at the age of sixty-two.

Of Aristotle's writings, only about one fifth to one quarter have survived. Still, the great variety of subjects that they cover provides a good indication of the range and depth of his interests. The notorious difficulty these writings pose for the contemporary reader is in part explained by the nature of the works themselves. Far from being polished pieces of prose intended for publication, they are for the most part working papers and lecture notes, terse and compressed often to the point of unintelligibility. (Ancient sources tell us that in his published works—now lost—Aristotle displayed an exemplary literary style, and there are occasional glimpses of it in the surviving works.)

Aristotle was above all driven by a desire for knowledge and understanding in every possible realm. His works are teeming with detailed observations about the natural world as well as abstract speculations of the most general sort. As both a scientist and a philosopher, Aristotle could easily make the transition from describing the feeding behavior of eels and limpets to theorizing about the divine intellect that is the uncaused cause of everything else in the universe. But his philosophical and scientific interests are rooted in the natural world—about one quarter of the surviving works deal with topics in biology. This he combined with an unshakeable confidence in the ability of the human mind, aided by the system of deductive logic he invented and by close and detailed observation of natural phenomena, to comprehend the fundamental nature of objective reality.

Aristotle did not suppose that he was the first person to attempt this task. He was a keen student of the writings of his scientific and philosophical predecessors. The influence of Plato's thought is apparent throughout Aristotle's works, even where he disagrees with his teacher most. He pays a

great deal of attention to the Presocratics, seldom agreeing with them, but often crediting them with important (albeit usually partial) insights. His typical approach to a subject is to review its history and then, making what use he can of the received opinions, to set out his own account. Often his position is a kind of compromise that incorporates the best features while avoiding the excesses of rival schemes that are too extreme.

All of the sciences (*epistēmai*, literally "knowledges") can be divided into three branches: theoretical, practical, and productive. Whereas practical sciences, such as ethics and politics, are concerned with human action, and productive sciences with making things, theoretical sciences, such as theology, mathematics, and the natural sciences, aim at truth and are pursued for their own sake. Aristotle was unique in pursuing all three. His *Rhetoric* and *Poetics*, which provide the foundation for the study of speech and literary theory, are his contributions to the productive sciences. The *Ethics* and *Politics* are devoted to the practical sciences. In the remainder of his works, Aristotle directs his attention to the theoretical sciences.

A science, according to Aristotle, can be set out as an axiomatic system in which necessary first principles lead by inexorable deductive inferences to all of the truths about the subject matter of the science (*Posterior Analytics* I.6). Some of these first principles are peculiar to the science in question, as the definition of a straight line is to geometry. Some—such as the principle of noncontradiction—are so general that they are common to all the sciences (*Metaphysics* IV.3). Scientific knowledge is therefore demonstrative; what we know scientifically is what we can derive, directly or indirectly, from first principles that do not themselves require proof.

What, then, is the status of the first principles? They clearly cannot be known in the same way as the consequences derived from them, i.e., demonstratively, yet Aristotle is confident that they must be known—for how could knowledge be derived from what is not knowledge? They are, Aristotle tells us, grasped by the mind (Aristotle's term is *nous*, usually translated as *intuition* or *understanding*). This way of putting the matter makes it seem as if an Aristotelian science is an entirely *a priori* enterprise in which reason alone grasps first principles and logic takes over from there to arrive at all of the truths of science. And Aristotle does say that it is dialectic—a process of deductive reasoning—that provides a path to first principles (*Topics* I.2).

It is clear, however, that Aristotle does not think that this alone is the way a scientist goes about acquiring his knowledge, for in his own scientific treatises, he does not begin by announcing the first principles and deducing their consequences. Rather, he sets out the puzzles the science is trying to solve and the observations that have been made and the opinions that have been held about them. Perhaps he thinks of the axiomatic presentation as a kind of ideal that is possible only for a completed science and is appropriate for teaching it rather than for making discoveries in it. As for the

acquisition of first principles, Aristotle appeals to what sounds somewhat like an inductive procedure. Beginning with the perception of particulars, which are "better known to us," and moving through memory and experience, we arrive at knowledge of universals, which are "better known in themselves" (*Posterior Analytics* II.19, *Metaphysics* I.1). Aristotle's approach thus seems to combine features of both rationalism and empiricism.

Each of the special sciences studies some particular realm of being, some part of what there is. But there is also, Aristotle maintains (*Metaphysics* IV.1), a more general study of what there is, a study of being *qua* being. ('*Qua*' translates a technical expression Aristotle uses to indicate an aspect under which something is to be considered). The study of being *qua* being concerns the most general class of things, viz., everything that exists. And it studies them under their most general aspect, namely, as things that exist. It thus raises the question of what it is for something to exist.

Now, on Aristotle's view what it is for a horse to exist is different in kind from what it is for whiteness or courage to exist. "Being," he tells us, "is said in many ways" (*Metaphysics* IV.2). So it might seem that there could not be a unified answer to the question of what it is for something in general to exist. But he also thinks that there is a connection among these modes of being (or senses of 'exist') which is deep enough to make a unified answer possible. The existence of whiteness is derivative; there is such a thing as whiteness because something, for example some horse, is white. Whiteness is not an independent entity, capable of existing on its own. Horses and other biological specimens, on the other hand, are independent entities. Such independently existing entities Aristotle called *substances.* (The Greek word traditionally translated as 'substance' may with equal plausibility be rendered 'basic reality'.) The existence of everything else is somehow dependent on its relation to substances. Hence Aristotle tells us that the ancient and perennial question "What is being?" really comes down to the question "What is substance?" (*Metaphysics* VII.1).

Substances, then, are the most fundamental realities. But not all of Aristotle's predecessors would have agreed with him about what the substances are. Empedocles would have said that the four *elements* are the only substances; Democritus would call the *atoms* substances; for Plato, the substances are his independently existing and immaterial *forms.* Much of Aristotle's *Metaphysics* is spent trying to steer a middle course between the materialism of these Presocratics, on the one hand, and Platonism, on the other. How successful he is in this effort—and indeed, even the precise details of his solution—are matters of dispute.

In his earliest ontological writings, Aristotle maintains that individual biological specimens—this man, or that tree—are the primary substances (*Categories* 5). The species to which they belong, *man* and *tree,* are substances in a secondary sense. But he subsequently (*Metaphysics* VII–VIII) begins to raise the question of what it is that makes this man or that tree a substance—what the substance *of* these things is, as he puts it. He intimates

that the answer to this question will tell us what primary substance is. His convoluted and difficult investigation of this question leads him to the conclusion that it is *form* or *essence* that is primary substance. This suggests a tilt in the direction of Platonism, but Aristotle insists that his answer is different from Plato's, for on his view Platonic forms are separate from and independent of their material instantiations, whereas Aristotelian essences in some sense are not. Still, much remains unclear about Aristotle's answer. For example, there is no consensus among scholars about whether Aristotle thought of essences as being particular (so that each individual horse has its own unique essence) or specific (in which case the essence of all horses will be the same).

Aristotle's universe is finite, eternal, and geocentric: a stationary earth surrounded by concentric spheres that carry the sun, moon, planets, and stars in their circular orbits about the earth. Everything below the sphere of the moon is made of four fundamental elements—earth, water, air, and fire—that interact and are capable of transforming into one another. Each element is characterized by a pair of properties from among the contraries hot, cold, wet, and dry. Earth is cold and dry, water cold and wet, air hot and wet, fire hot and dry. The heavenly bodies are made of a different kind of matter altogether, a fifth element ("quintessence"). Each element has a natural place and a natural movement. The four sublunary elements tend to move in a straight line, earth downward toward the center of the universe, fire up toward the extreme reaches of the universe, and air and water toward intermediate places. Once in its natural place, each of these four remains at rest unless something else causes it to move. The natural movement of the fifth element in the heavens is circular and eternal. All of this movement and change is ultimately explained in terms of an "unmoved mover"—a cause of change that is itself uncaused and outside of the universe (*On the Heavens* I–III, *On Generation and Corruption* II.4, *Physics* VIII.6, *Metaphysics* XII.6–9).

It is the job of natural science to study things whose nature it is to undergo change. In the face of influential Parmenidean arguments against the possibility of change, Aristotle attempted to set out a framework that would make change intelligible. Every change involves three essential ingredients: a pair of opposed characteristics or states (from which and to which, respectively, the change occurs) and a subject which underlies the change and persists through it. Schematically, every change, every case of "coming to be," can be described in this way: Something, x, goes from being F to being not F, or vice versa. A musician comes to be because a man goes from being unmusical to being musical; a statue comes to be because some shapeless bronze takes on a definite form. Contrary to what Parmenides argued, coming to be does not involve getting *something from nothing*; it involves getting something which is F from something which is (among other things) not F (*Physics* I.7–9).

These are the necessary preconditions for change. But what is change?

Aristotle defines it in terms of his concepts of *actuality* and *potentiality*. Change, he tells us, is "the actuality of what is potentially, *qua* such" (*Physics* III.1). The process of building a house, for example, is the actuality of the buildable materials, *qua* buildable. The materials that are potentially a house are already actual even before the building begins—they are bricks and boards, etc. So the actuality with which Aristotle identifies change is that of the bricks and boards, not *qua* bricks and boards, but *qua* buildable. It is precisely when the house is in the process of being built that this potentiality of the materials actually (and not merely potentially) exists *qua* potentiality. Once the process is completed, that potentiality has been replaced by a corresponding actuality, that of the completed house. The precise meaning of Aristotle's definition of change is a subject of scholarly debate. For present purposes it is sufficient to note that, in undergoing change, a thing is actualizing a potentiality that it already has even before it changes. It is thus already part of its nature to be able to undergo change of that sort.

It is the job of a theoretical science to explain things, and that means that it must answer "Why?" questions. To answer such a question is to give a *cause*. (Aristotle's word is *aition*; 'explanation' is an equally appropriate translation.) But 'cause' is "said in many ways" (*Physics* II.3). In one sense, the cause of something is the material out of which it comes to be (material cause). In another sense, it is the form or essence stated in the definition of the thing (formal cause). In a third, it is the source of change or stability (efficient cause). In a fourth, it is the end (*telos*), what the thing is *for* (final cause). Note that it is not just events that have causes, in Aristotle's view; houses and tigers have causes just as much as eclipses and explosions do. Note also that there can be more than one cause of the same thing (e.g., bronze is the material cause of a statue, whereas a certain shape is its formal cause). Indeed, two things may be causes of each other, as exercise is the (efficient) cause of health, and health is the (final) cause of exercise.

A complete account of something will mention all of the causes that are appropriate to it. Artifacts clearly have causes in all four senses: A house is made of wood, by a builder, with a form and structure suitable to provide a shelter for human beings and their possessions. Mathematical objects, since they do not undergo change, have no efficient or final causes. Natural objects, such as plants and animals, clearly have the first three kinds of cause, for they come into being, are composed of matter (ultimately of the four elements), and have essential natures. But are there final causes in nature? Aristotle maintains, notoriously, that there are (*Physics* II.8, *Parts of Animals* I.1). His teleological account of nature is central to his entire philosophical system.

His position here may strike us as an aberration if we identify final causes with conscious intentions. The final causes of artifacts are found in the minds of the artisans who made them; they are in that sense external to

the artifacts themselves. (It is for this reason that artifacts do not count for Aristotle as genuine substances. Lacking final causes that are internal to them, they do not engage in activity of their own, and hence they have no essence, strictly speaking.) But final causes in nature are not like this at all. Rather, Aristotle's idea is that the final causes of natural objects are internal to those objects. Consider the living creatures that populate the natural world. They behave in certain characteristic ways: They interact with their environment, nourish themselves, reproduce. Their being is defined by these functions and these characteristic activities. The parts of which they are composed enable them to fulfill these functions more or less successfully. It is not by accident that animals have teeth or eyes; these organs clearly have functions—they are *for* something. And what they are for is typically beneficial for the organism; they enable it to survive and to engage in the activities that define its being. It is function and activity, not purpose, that Aristotle claims to discern in nature.

This understanding of Aristotle's teleology helps to explain why he believes that final, formal, and efficient causes often coincide (*Physics* II.7). Just as the various parts and organs of an animal contribute toward its well-being and survival, the *telos* of the animal itself is to be a good (i.e., successful) specimen of its kind. So the final cause of a tiger is just to be a tiger, as specified in its formal cause (i.e., its definition). The coincidence of the efficient cause with the final and the formal can be seen most easily in the case of reproduction and development. The efficient cause of a tiger cub is a tiger (in Aristotle's view, its father). As the cub grows, its process of development tends almost invariably (in the normal case—occasionally things go awry) toward the same outcome: a mature individual that, like its parents, satisfies the definition of a tiger.

The being of a living thing is thus inextricably bound up in its being alive and living the life that a thing of its kind lives. What is it that differentiates the living from the nonliving? Aristotle's answer is: the presence of the soul (*psuchē*). We notice immediately an important difference between this and later conceptions of soul: *Psuchē* for Aristotle is linked with life in general, rather than with mind, thought, or personality in particular. All living things have souls. But there are different degrees or levels of soul, associated with different capacities or functions. At the most fundamental level is the nutritive soul, the kind of soul common to all living things, for all plants and animals have the capacity to take in nourishment. Higher levels of soul account for the appetitive, locomotive, and perceptive capacities of humans and other animals. At the highest level is the rational soul, peculiar to humans.

But what is the soul? Aristotle defines it to be the *form* of the body. More precisely, it is the "first actuality of a natural body that has life potentially" (*De Anima* II.1). The term 'first actuality' needs some explanation. As Aristotle uses the expression, a first actuality is not itself an activity or bit

of behavior (a 'second actuality'), but a capacity or ability to act or to behave. It is thus a kind of potentiality (a 'second potentiality'), an organizing principle that enables a living thing to go about the business of living. To have a soul, then, is to have the capacity to engage in certain characteristic activities. In the most general case, it is the capacity to metabolize. For higher levels of soul, it is the capacity to move about, to have desires and to fulfill them, to perceive, to contemplate.

The soul is therefore neither a material part of an animal, nor some immaterial thing capable of existing in separation from the body. For the soul is a set of capacities that a living thing has, and these capacities are incapable of existing on their own—they are the capacities of a living thing. Aristotle thus resists both a materialistic conception of the soul as some kind of bodily part and a Platonic conception which holds the soul to be independent of and, indeed, impeded by the body.

Much of Aristotle's discussion of the soul concerns the topic of sense-perception (*De Anima* II.5–12). He discusses the physiology of each of the five senses in detail and defines perception in general as the reception in the soul of the perceptible form of an external object. His account of thought to some extent mirrors what he says about perception. In thinking, the mind takes on the intelligible form of its object and in so doing becomes, in a sense, identical to it. Aristotle thereby avoids the problem of having somehow to relate a mental representation to an object external to the mind. But thought differs from perception in an important respect: Whereas there are sense organs, there is, for Aristotle, no organ of thought (*De Anima* III.4). For this reason he holds that thought, unlike other psychic functions, is somehow separable from the body. It is not clear how well this aspect of Aristotle's theory can be made to harmonize with his otherwise hylomorphic conception of the soul.

Thus far we have looked at some of Aristotle's answers to the questions of the theoretical sciences. As we shall see, his approach to the practical sciences builds on those answers. The central question of ethics is how to live, i.e., what the good life is, and Aristotle's answer is basically naturalistic. He takes it to be uncontroversial that all of our actions are aimed at some good. So the good, he reasons, is "that at which all things aim" (*Nicomachean Ethics* I.1). And what is this good? It must be something that is chosen for its own sake, and not for the sake of something else. Aristotle's answer is that it is happiness (*eudaimonia*) in the sense of well-being or flourishing. (It would be a mistake to think of happiness here in the narrow sense of a kind of mental or emotional state.) The well-being of a thing consists in its fulfilling its basic functions and performing its characteristic activities. Human happiness or well-being, then, consists in fulfilling the functions and performing the activities that define life for human beings. All animals nourish themselves, and grow, and perceive. What is distinctively human is the rational faculty, and that is what determines our

well-being. *Eudaimonia* is therefore an "activity of soul in accordance with virtue or excellence (*aretē*)" (*Nicomachean Ethics* I.7). We flourish, then, when we do well the things that are distinctively human.

The remainder of Aristotle's *Ethics* consists of an unpacking of this basic conception of *eudaimonia.* He distinguishes virtues of character from intellectual virtues, and discusses all of them in detail (*Nicomachean Ethics* II–VI). Intellectual virtues are excellences of the rational element in the soul. But the irrational element also has an aspect that is rational, in that it is capable of being persuaded by reason, and the excellences of this part of the soul are virtues of character, or moral virtues (*Nicomachean Ethics* I.13). Such a virtue is a disposition to choose actions that are intermediate between the extremes of excess and deficiency. (For example, courage is a mean between cowardice and rashness.) These choices must be made in accordance with reason, as would be determined by a person of practical wisdom. So possession of the moral virtues implies the possession of the intellectual virtues, as well, since practical wisdom is an intellectual virtue. Of the intellectual virtues, the highest is that of theoretical contemplation. This, finally, is the activity of the soul with which Aristotle identifies the highest form of *eudaimonia* (*Nicomachean Ethics* X.7).

In Aristotle's view, politics is continuous with ethics, for just as it is part of human nature to seek happiness, it is also part of human nature to live in communities. We are, Aristotle asserts, social animals (*Politics* I.2). The state is the highest form of community; it is a natural entity, and does not exist merely by convention. (The kind of state Aristotle has in mind is the relatively small city-state of fourth-century Greece.) Plato had argued that the structure of the soul was like that of the state, with different psychic functions corresponding to different classes of citizens. For Aristotle, the analogy works the other way around. The state has a proper function and a nature in the same way that an individual organism does. Hence, to say what a state is we must determine what its proper function is.

Aristotle believes that a state exists for the sake of the good or happy life, so that the best form of government will be one which promotes the well-being of all of its citizens, and he goes on, after considering a variety of alternatives, to describe such a state in considerable detail (*Politics* VII). In his emphasis on the rule of law and the role of a constitution in defining a state, Aristotle's ideas are still timely today. There are other aspects of his thought, however, such as his belief that there are natural rulers and natural slaves, that the contemporary reader will no doubt find repugnant.

Aristotle has had a profound influence on the history of philosophy. From late antiquity through the middle ages, it was standard procedure for philosophers to couch their own writings in the form of commentaries on his works. His logic was so thoroughly accepted that the subject remained virtually unchanged for the next two millennia. His concepts of subject and predicate, matter and form, essence and accident, species and genus,

among others, have become a standard part of the philosophical vernacular. Although many of his ideas have been discredited or superseded, much of what he has to say remains relevant to issues of vital contemporary interest. In terms of the breadth of his intellectual curiosity and the vastness of his influence, Aristotle is without equal in the history of human thought.

CATEGORIES

Translated by S. Marc Cohen and Gareth B. Matthews

In this brief but important work, Aristotle gives an account of predication, i.e., of the application of the terms of a language to things in the world. (The Greek word katēgoriai, *from which the English 'categories' is derived, comes from the verb meaning "to predicate.") On the basis of this account he develops a theory of classification of "the things that there are." In the excerpt presented here he introduces the notion of a substance* (ousia), *his term for an independently existing entity, a fundamental ingredient of reality. Everything else, he argues, depends for its existence on the existence of substances.*

1

1a Things are called *homonymous* when they have only a name in common but a different definition[1] corresponding to the name. For example, both a human and a drawing are animals.[2] But while the name of these two things is common to them both, the definition corresponding to the name is different. For if one gives an account of what it is for each of them to be an animal, one will give a distinctive definition for each.

Things are called *synonymous* when they have a name in common and also the same definition corresponding to the name. Thus, for example, both a human and an ox are animals. Each of them is called by the same name, 'animal'; moreover, the definition of what they are is the same. For if one gives a definition of what it is for each of these to be what it is, an animal, one will give the same definition.

Things are called *paronymous* in case one gets its name from another with some difference in grammatical form. Thus, for example, the grammarian gets his name from grammar, the brave man from bravery.

1. 'Definition', here and elsewhere in this chapter, translates *logos tēs ousias*, literally, 'account of being'.

2. The Greek word *zōon* can mean either an animal or a figure in a picture; the latter need not be the figure of an animal.

2

Among things that are said, some are said in combination, some without combination. Examples of things said in combination are 'man runs', 'man wins'. Examples of things said without combination are 'man', 'ox', 'runs', 'wins'.

Among the things that there are: *20*

(a) Some are said of a subject but are not in any subject. For example, man is said of a subject, the individual man, but is not in any subject.
(b) Some are in a subject but are not said of any subject. (I call 'in a subject' what is in something, not as a part, and cannot exist separately *25* from what it is in.) For example, this bit of grammar is in a subject, the soul, but it is not said of any subject; and this individual white is in a subject, the body, for all color is in body, but it is not said of any subject.
(c) Some are both said of a subject and in a subject. For example, knowl- *1b* edge is in a subject, the soul, and is said of a subject, grammar.
(d) Some are neither in a subject nor said of a subject, for example the individual man or the individual horse. Nothing of this sort is either in *5* a subject or said of a subject.

Without exception, things that are individual and one in number are not said of any subject, but nothing prevents some of them from being in a subject. This bit of grammar is among the things in a subject.

3

Whenever one thing is predicated of another as of a subject, everything *10* said of what is predicated will also be said of the subject. For example, man is predicated of the individual man, and animal is predicated of man; therefore animal will also be predicated of the individual man. For the individual man is both a man and an animal. *15*

Differentiae of genera that are different and not subordinate to one another are also different in kind—for example, differentiae of animal and of knowledge. For the differentiae of animal are *footed, winged, aquatic,* and *two-footed,* but none of these is a differentia of knowledge—one sort of knowledge does not differ from another by being two-footed. Yet if one *20* genus is subordinate to another, nothing prevents their differentiae from being the same. For the higher genera are predicated of those beneath them, so that all differentiae of what is predicated will be differentiae of the subject as well.

PHYSICS

The Greek title of this work, ta phusika, *comes from the word for nature* (phusis). *It thus refers to the study of natural phenomena in general, and not just to physics in the narrow sense. In books I and III Aristotle defends and defines the concept of change. In book II he presents his doctrine of the four causes, discusses the topics of chance and necessity, and argues for the existence of ends (or "final causes") in nature. In parts of the book not included in this anthology, he discusses place, time, the void, the infinite, continuity, and the eternity of change. Finally, in book VIII he argues for the eternal existence of an "unmoved mover"—an uncaused cause of change.*

BOOK I

1

184a In every line of inquiry into something that has principles[1] or causes or elements, we achieve knowledge—that is, scientific knowledge[2]—by cognizing them; for we think we cognize a thing when we know its primary causes and primary principles, all the way to its elements. Clearly, then, it *15* is also true in the science of nature that our first task is to determine the principles.

The natural path is to start from what is better known and more perspicuous to us, and to advance to what is more perspicuous and better known by nature; for what is better known to us is not the same as what is better known without qualification. We must advance in this way, then, *20* from what is less perspicuous by nature but more perspicuous to us, to what is more perspicuous and better known by nature.

The things that, most of all, are initially clear and perspicuous to us are inarticulate wholes; later, as we articulate them, the elements and principles come to be known from them. We must, then, advance from universals *25* to particulars;[3] for the whole is better known in perception, and the univer-

1. **principles**: 'Origins' would often be appropriate in Bk i (see PRINCIPLE); but to display the connection of thought, we have kept 'principles' throughout.

2. **scientific knowledge**: just one word in Greek (*epistēmē*).

3. **from universals to particulars**: Aristotle is concerned with the process of clarifying very general principles that we do not fully understand at the start. The passage

sal is a sort of whole, since it includes many things as parts. The same is *184b*
true, in a way, of names in relation to their accounts. For a name—for instance, 'circle'—signifies a sort of whole and signifies indefinitely, whereas the definition <of a circle> articulates it by stating the particular <properties>. Again, children begin by calling all men 'father' and all women 'mother'; only later do they distinguish different men and different women.

5[4]

We must first of all grasp the fact that nothing that exists is naturally such *188a*
as to act or be affected in just any old way by the agency of just any old thing; nor does something come to be just any old thing from just any old thing, unless you consider coincidents. For how could <something> come *35*
to be pale from being musical, unless musical were a coincident of the not-pale or the dark thing?[5] Rather, something comes to be pale from being not-pale—and not simply from being not-pale, but from being dark or *188b*
something between dark and pale. Similarly, something becomes musical from being not-musical, and not from just any way of being not-musical but from being unmusical or from being something (if there is anything) between musical and unmusical.

Nor, on the other hand, does anything perish primarily into just any old thing. The pale thing, for instance, does not perish into the musical thing (unless it does so coincidentally), but into the not-pale thing, and not into *5*
just any old not-pale thing, but into the dark thing or into something between pale and dark. In the same way the musical thing perishes into the not-musical thing, and not into just any old not-musical thing, but into the unmusical thing or into something between musical and unmusical.

The same is true in the other cases as well, since the same account applies to things that are not simple but composite; but we do not notice *10*
that this is so, because the opposite condition in each case has no name. For whatever is ordered must necessarily come to be from something disordered, and what is disordered from something ordered, and whatever is

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is not inconsistent (despite appearances) with *APo* 72a4, where Aristotle is concerned with a different process—the inductive progress from awareness of particular facts to universal generalizations.

4. In i 2–4 Aristotle discusses (1) arguments of the Eleatics against the reality of COMING TO BE and (2) views of other Presocratics on the sorts of principles needed to account for coming to be. He rejects (1) and now turns to offer his own account of the principles considered in (2).

5. **the not-pale or the dark thing**: Aristotle uses just the neuter definite article and adjective. The exact interpretation of these phrases is often difficult, since they might refer either to the quality or to the subject that has it; cf. *Met.* 1031b22–8.

ordered must necessarily perish into disorder, and not into just any old
15 disorder, but into the one opposed to that order.

It makes no difference whether we speak of order or arrangement or combination, since it is evident that the same account applies to them all. Now, a house, a statue, and any other <artifact> comes to be in the same way. For a house comes to be from these <bricks etc.> which were not combined, but dispersed in this way; and a statue, or whatever is shaped,
20 comes to be from shapelessness; and each of these is a case of arrangement or combination.

If, then, this is true, everything that comes to be or perishes does so from one contrary into the other, or from or into the intermediate. And the intermediates are from the contraries, as, for instance, colors are from pale
25 and dark. And so all the things that come to be naturally are either contraries or from contraries.[6]

6

189a . . . The following puzzle might arise if we do not assume some other nature as subject for the contraries. For we see that contraries are not the
30 substance of anything that is, and a principle must not be said of any subject; for if it were, then the <alleged> principle would itself have a principle, since a subject seems to be a principle of, and prior to, what is predicated of it. Further, we say that one substance is not contrary to another. How, then, could a non-substance be prior to a substance?

35 That is why someone who takes both the previous argument and this one
189b to be correct must, if he is to retain them both, assume a third thing as subject, as those theorists do who take the whole universe to be some one nature—water, fire, or something intermediate. And in fact something intermediate seems more reasonable, since fire, earth, air, and water are essentially[7] involved with contrarieties. . . .

7

30 Let us, then, give our own account of coming to be, in the following way. And first let us deal with all of coming to be; for the natural procedure is to speak first about what is common to every case, and then to study what is special to each case.

When we say that something comes to be one thing from being another and different thing, we are speaking about either simple or compound
35 things. What I mean is this: It is possible that a man comes to be musical,

6. Aristotle continues in i 5 by showing how the various Presocratic views confirm his conclusion.

7. **essentially**: lit. 'already'.

that the not-musical thing comes to be musical, and that the not-musical 190a
man comes to be a musical man. By 'simple thing coming to be <*F*>' I mean the man and the not-musical thing; and by 'simple thing that comes into being'[8] I mean the musical thing. By 'compound' I mean both the thing that comes into being and what comes to be that thing, whenever we say that the not-musical man comes to be a musical man. 5

In one type of case we say not only that something comes to be *F*, but also that it comes to be *F from* being *G*;[9] for instance, <the man not only comes to be musical, but also comes to be> musical from being not-musical. But we do not say this for all <properties>; for <the man> did not come to be musical from being a man, but rather the man came to be musical.

When something comes to be *F* (in the sense in which we say a simple thing comes to be <something>), in some cases it remains when it comes 10
to be *F*, and in other cases it does not remain. The man, for instance, remains a man and is still a man when he comes to be musical, whereas the not-musical or unmusical thing, either simple or compound, does not remain.

Now that we have made these distinctions, here is something we can grasp from every case of coming to be, if we look at them all in the way described. In every case there must be some subject that comes to be 15
<something>; even if it is one in number, it is not one in form, since being a man is not the same as being an unmusical thing. (By 'in form' I mean the same as 'in account'.) One thing <that comes to be> remains, and one does not remain. The thing that is not opposite remains, since the man remains; but the not-musical thing, or the unmusical thing, does not remain. Nor 20
does the thing compounded from both (for instance, the unmusical man) remain.

We say that something comes to be *F* from being *G*, but not that the *G* comes to be *F*, more often in cases where *G* does not remain; for instance, we say that <a man> comes to be musical from being unmusical, but not that <the unmusical comes to be musical> from a man. Still, sometimes we speak in the same way in cases where *G* remains; we say, for instance, that 25
a statue comes to be from bronze, but not that the bronze comes to be a

8. **thing that comes into being'**: This refers to the product of the coming to be—in this case, to the musical thing that comes into being as a result of the man becoming musical.

9. **not only . . . being *G***: Or: 'not only that it comes to be, but also that it comes to be from *F*. The second rendering is less likely, since Aristotle seems to introduce '*F* comes to be' (i.e. comes to be without qualification) for the first time at 190a31. We have supplied the dummy letters ('*F*, etc.); Aristotle uses either nothing (leaving the reference to be gathered from the context) or demonstrative pronouns ('this comes to be this', etc.).

statue. If, however, something comes to be *F* from being *G*, where *G* is opposite to *F* and *G* does not remain, we speak in both ways, saying both that something comes to be *F* from being *G* and that the *G* comes to be *F*; for it is true both that the man comes to be musical from being unmusical and that the unmusical one comes to be musical. That is why we also say
30 the same about the compound: we say both that the musical man comes to be musical from being an unmusical man and that the unmusical man comes to be musical.

Things are said to come to be in many ways, and some things are said not to come to be, but to come to be something; only substances are said to come to be without qualification. In the other cases it is evident that there must be some subject that comes to be <something>; for in fact, when
35 <something> comes to be of some quantity or quality, or relative to another, or somewhere, something is the subject <underlying the change>, because a substance is the only thing that is never said of any other subject,
190b whereas everything else is said of a substance.[10]

However, substances—the things that are without qualification—also come to be from some subject. This will become evident if we examine it. For in every case there is something that is a subject from which the thing
5 that comes to be comes to be, as plants and animals come to be from seed.

Some of the things that come to be without qualification do so by change of figure (for instance, a statue); some by addition (for instance, growing things); some by subtraction (for instance, Hermes from the stone); some by composition (for instance, a house); some by alteration (for instance, things changing in accordance with their matter). It is evident that every-
10 thing that comes to be in this way comes to be from a subject.

And so it is clear from what has been said that in every case, what comes to be is composite: there is something that comes into being and something that comes to be this. And this latter thing is of two sorts: either the subject or the opposite. I mean, for instance, that the unmusical is opposite, and the
15 man is subject; and that the lack of figure, shape, and order is the opposite, and the bronze, stone, or gold is the subject.

Suppose, then, that there are indeed causes and principles of natural things, from which they primarily are and have come to be—not come to be coincidentally, but come to be what each thing is called in accordance
20 with its essence. It evidently follows that everything comes to be from the subject and the shape. For in a way the musical man is composed from man and musical, since you will analyze him into their accounts. It is clear, then, that whatever comes to be does so from these things.

10. **said of a substance**: Aristotle uses 'said of a subject' more broadly here than in *Catg.* 1a21. In the *Catg.* the phrase is confined to the predication of essential properties. Here (and elsewhere; cf. *Met.* 1028b26) it also includes non-essential properties (and so includes the cases where the *Catg.* speaks of being 'in a subject').

The subject is one in number but two in form. Man, gold, and matter in general, is countable, since it is a this more <than the privation is>, and what comes to be comes to be from it not coincidentally. The privation—the contrariety—is a coincident. The form is one—for instance, structure, musicality, or anything else predicated in this way.

Hence we should say that in one way there are two principles, and that in another way there are three. In one way they are contraries—if, for instance, one were to speak of the musical and the unmusical, or the hot and the cold, or the ordered and the disordered. But in another way they are not contraries, since contraries cannot be affected by each other. This <puzzle about how becoming is possible> is also solved by the fact that the subject is something different, since it is not a contrary.

Hence, in a way the principles are no more numerous than the contraries, but, one might say, they are two in number. On the other hand, because they differ in being, they are not two in every way, but three; for being man is different from being unmusical, and being shapeless is different from being bronze.

We have said, then, how many principles are relevant to the coming to be of natural things, and we have described the different ways they should be counted. And it is clear that some subject must underlie the contraries, and that there must be two contraries. In another way, however, there need not be two; for just one of the contraries is enough, by its absence or presence, to produce the thing.

The nature that is subject is knowable by analogy. For as bronze is to a statue, or wood is to a bed, or as the shapeless before it acquires a shape is to anything else that has a shape, so the nature that is subject is to a substance, a this, and a being.

This, then, is one principle; it is not one or a being in the way a this is. Another principle is the one specified by the account, and a third is the contrary of this, the privation. The way in which these are two, and the way in which they are more than two, has been stated above.

First, then, it was said that only the contraries were principles. Later we added that something further is needed as subject and that there must be three principles. And from what we have said now it is evident how the contraries differ, how the principles are related to one another, and what the subject is. It is not yet clear, however, whether the form or the subject is substance.[11] Still, it is clear that there are three principles, and in what way there are three, and what sorts of things they are. This, then, should allow us to observe how many principles there are, and what they are.

11. **whether . . . substance**: It is surprising that Aristotle considers only the matter and the form, and omits the statue (which might seem to be a compound of matter and form) as a candidate for being substance. See further *Met.* vii 3, 10–11, 1042a26–31, FORM.

8

This is also the only solution to the puzzle raised by the earlier philoso-
25 phers, as we shall now explain. Those who were the first to search for the truth philosophically and for the nature of beings were diverted and, so to speak, pushed off the track by inexperience. They say that nothing that is either comes to be or perishes. For, they say, what comes to be must come to be either from what is or from what is not, and coming to be is impossible in both cases; for what is cannot come to be (since it already is), while nothing can come to be from what is not (since there must be some subject). And then, having reached this result, they make things worse by going on to say that there is no plurality, but only being itself.

They accepted this belief for the reason mentioned. We reply as follows:
30 The claim that something comes to be from what is or from what is not, or that what is or what is not acts on something or is acted on or comes to be
191b anything whatever, is in one way no different from the claim that, for instance, a doctor acts on something or is acted on, or is or comes to be something from being a doctor. We say this about a doctor in two ways; and so, clearly, we also speak in two ways when we say that something is or comes to be something from what is, and that what is is acting on something or being acted on.

Now a doctor builds a house, not insofar as he is a doctor, but insofar as
5 he is a housebuilder; and he becomes pale, not insofar as he is a doctor, but insofar as he is dark. But he practices medicine, or loses his medical knowledge, insofar as he is a doctor. We speak in the fullest sense of a doctor acting on something or being acted on, or coming to be something, from being a doctor, if it is insofar as he is a doctor that he is acted on in this way or produces these things or comes to be these things. So it is also clear that coming to be from what is not signifies this: coming to be from it
10 insofar as it is not.

The early philosophers failed to draw this distinction and gave up the question. This ignorance led them into more serious ignorance—so serious that they thought nothing else <besides what already is> either is or comes to be, and so they did away with all coming to be.

We agree with them in saying that nothing comes to be without qualification from what is not, but we say that things come to be in a
15 way—for instance, coincidentally—from what is not. For something comes to be from the privation, which in itself is not and which does not belong to the thing <when it has come to be>. But this causes surprise, and it seems impossible that something should come to be in this way from what is not.

Similarly, there is no coming to be, except coincidentally, from what is, or of what is. But coincidentally what is also comes to be, in the same way
20 as if animal came to be from animal and a certain animal from a certain animal. Suppose, for instance, that a dog came to be from a horse. For the

dog would come to be not only from a certain animal, but also from animal, though not insofar as it is animal (for that is already present). But if a certain <sort of> animal is to come to be, not coincidentally, it will not be from animal; and if a certain thing that is <is to come to be>, it will not be from what is, nor from what is not. For we have said what 'from what is not' signifies—i.e. insofar as it is not. Further, we are not doing away with <the principle that> everything is or is not.

This is one way <of solving this puzzle>. Another is <to note> that the same things can be spoken of in accordance with potentiality and actuality; this is discussed more exactly elsewhere.

And so, as we have said, we have solved the puzzles that compelled people to do away with some of the things we have mentioned. For this is why earlier thinkers were also diverted from the road leading them to <an understanding of> coming to be, perishing, and change in general. For if they had seen this nature <of the subject>, that would have cured all their ignorance.

9

Admittedly other people touched on the nature of the subject, but did not grasp it adequately. For first they agree that a thing comes to be without qualification from what is not and that to this extent Parmenides is right; but then it appears to them that if a thing is one in number, it is also only one in potentiality—whereas in fact the two are very different.

For we say that matter and privation are different and that matter is coincidentally a not-being, whereas the privation is a not-being in its own right. Moreover, we say that matter is close <to being substance> and in a way is substance, whereas the privation is not substance in any way. Previous thinkers, however, identify both the great and the small (taken both together or each separately) with what is not, so that their conception of the three things involved must be quite different from ours. For they got as far as seeing that there must be some nature that is the subject, but they take this to be one—for even though someone takes it to be a pair (calling it the great and small), he still does the same thing <in taking it to be one>, since he overlooked the other nature.

For the nature that remains[12] is a joint cause, together with the form, of what comes to be, as a mother is; but the other part of the contrariety might often appear not to be at all, if one focuses on its evildoing aspect. For we say that one principle is divine, good, and an object of striving, while a second is contrary to the first, and the third naturally strives for the first and tends towards it in accordance with its own nature. In their view, by contrast, the contrary tends towards its own destruction. In fact, how-

12. **nature that remains**: i.e. matter.

ever, the form cannot strive for itself, since it does not lack <itself>; nor does the contrary strive for it, since contraries destroy each other. Hence what strives for the form must be the matter. It is as though the female strove to be male, or the ugly to be beautiful—except that <the matter> is
25 not ugly or female in its own right, but coincidentally.

The <matter> perishes and comes to be in a way, and in a way it does not.[13] For as that in which <the privation is present> it perishes in its own right, since what perishes—the privation—is present in this; but as what is potentially <formed, the matter> does not come to be or perish in its own right, but must be without coming to be or perishing. For if it was coming to be, there has to be some primary subject from which it was coming to be
30 and which is present in it; and this is the very nature of matter. And so <if we assume that the matter comes to be,> it will already be before it has come to be—for by 'matter' I mean a thing's primary subject, from which the thing comes to be and which is present in the thing non-coincidentally. And on the other hand, if the matter perishes, it will come finally to <matter>, so that <if we assume that the matter perishes>, it will have perished before it has perished.

An exact determination of questions about the formal principle—whether it is one or many, and what it is in each case—is a task for first
192b philosophy, and so we may put it off to that occasion.[14] Natural and perishable forms, however, will be discussed in the following exposition.

We have now determined, then, that there are principles, what they are, and how many they are. Let us now continue, after first making a fresh start.

BOOK II

1

Some existing things are natural, while others are due to other causes. Those that are natural are animals and their parts, plants, and the simple bodies, such as earth, fire, air and water; for we say that these things and things of this sort are natural. All these things evidently differ from those that are not naturally constituted, since each of them has within itself[15] a

13. **The <matter> . . . does not**: The following argument shows that in every case of coming to be there is some matter that, in that process, does not come to be (and correspondingly for perishing). It does not show that there is some matter that never comes to be or perishes.

14. **we may . . . occasion**: Such an inquiry is found in *Met.* vii–ix, xii.

15. **within itself**: This does not imply that they do not also have an external origin of their motions. Animals, for example, are moved not only by their internal principles but also by external forces and stimuli.

METAPHYSICS

Although everything in the Metaphysics *was written by Aristotle, it was probably not written as a single work but was put into its present form and probably given its present title by a later editor (Andronicus of Rhodes, first century A.D.). The meaning of the title is unclear. It may mean "Beyond natural things," indicating that this work goes beyond the study of nature. Or it may mean simply "After the* Physics," *referring to its place in the Aristotelian curriculum. Aristotle's own term for its subject matter is "first philosophy." The* Metaphysics *is generally regarded to be the most difficult work in the Aristotelian corpus.*

In the excerpts presented here, Aristotle discusses the history of the notion of causes (Book I); the nature of the study of being qua *being (Book IV); the question "What is substance?" and the ideas of matter, form, essence, and universals (Books VII and VIII); and the unmoved mover (Book XII).*

BOOK I

1

980a21 All human beings by nature desire to know. A sign of this is our liking for the senses; for even apart from their usefulness we like them for themselves especially the sense of sight, since we choose seeing above practically all the others, not only as an aid to action, but also when we have no intention
25 of acting. The reason is that sight, more than any of the other senses, gives us knowledge of things and clarifies many differences between them.

Animals possess sense-perception by nature at birth. In some but not all
980b of these, perception results in memory, making them more intelligent and better at learning than those that cannot remember. Some animals that cannot hear sounds (for instance, bees and similar kinds of animal) are
25 intelligent but do not learn; those that both perceive sounds and have memory also learn.

Non-human animals live by appearances and memories but have little share in experience, whereas human beings also live by craft[1] and reasoning. In human beings experience results from memory, since many memo-

1. **craft.** *Technē*, like *epistēmē*, applies both to the state of having knowledge and to what someone in that state knows.

ries of the same thing result in the capacity for a single experience.[2] Experience seems to be quite like science and craft, and indeed human beings attain science and craft through experience; for, as Polus[3] correctly says, experience has produced craft, but inexperience only luck. *981a* 5

A craft arises when many thoughts that arise from experience result in one universal judgment about similar things. For the judgment that in this illness this treatment benefited Callias, Socrates, and others, in many particular cases, is characteristic of experience, but the judgment that it benefited everyone of a certain sort (marked out by a single kind) suffering from a certain disease (for instance, phlegmatic or bilious people when burning with fever) is characteristic of craft. 10

For practical purposes, experience seems no worse than craft; indeed we even see that experienced people are actually more successful than those who have a rational account but lack experience. The reason is that experience is cognition of particulars, whereas craft is cognition of universals. Moreover, each action and event concerns a particular; in medical treatment, for instance, we do not heal man (except coincidentally) but Callias or Socrates or some other individual who is coincidentally a man.[4] If, then, someone has a rational account but lacks experience, and recognizes the universal but not the particular falling under it, he will often give the wrong treatment, since treatment is applied to the particular. 15 20

Nonetheless, we attribute knowing and comprehending to craft more than to experience, and we judge that craftsmen are wiser than experienced people, on the assumption that in every case knowledge, rather than experience, implies wisdom. This is because craftsmen know the cause, but <merely> experienced people do not; for experienced people know the fact that something is so but not the reason why it is so, whereas craftsmen recognize the reason why, i.e. the cause. 25 30

That is why we believe that the master craftsmen in a given craft are more honorable, know more, and are wiser than the manual craftsmen, because they know the causes of what is produced. The manual craftsmen, we think, are like inanimate things that produce without knowing what they produce, in the way that, for instance, fire burns; the latter produce their products by a natural tendency, while the manual craftsmen produce theirs because of habit. We assume, then, that some craftsmen are wiser than others not because they are better in practice, but because they have a rational account and recognize the causes. *981b* 5

And in general, a sign that distinguishes those who know from those

2. **experience**: See *APo* 100a3–6.

3. **Polus**: a rhetorical theorist of the mid-fifth century, a pupil of Gorgias. He is a character in Plato's *Gorgias*.

4. **coincidentally a man**: i.e. coincidentally from the point of view of healing. Aristotle does not mean that being a man is a COINCIDENTAL property of Socrates.

who do not is their ability to teach. Hence we think craft, rather than experience, is knowledge, since craftsmen can teach, while merely experienced people cannot.

Further, we do not think any of the senses is wisdom, even though they are the most authoritative ways of recognizing particulars. They do not tell us why anything is so; for instance, they do not tell us why fire is hot, but only that it is hot.

It is not surprising, then, that in the earliest times anyone who discovered any craft that went beyond the perceptions common to all was admired not only because he discovered something useful, but also for being a wise person, superior to others. Later on, as more crafts were discovered—some related to necessities, others to <leisuretime> pursuits—those who discovered these latter crafts were in every case judged to be wiser than the others, because their sciences did not aim at practical utility. Hence, finally, after all these crafts had been established, the sciences that aim neither at pleasure nor at necessities were discovered, initially in the places where people had leisure. This is why mathematical crafts arose first in Egypt; for there the priestly class were allowed to be at leisure.

The difference between craft and science and other similar sorts of things has been discussed in the Ethics.[5] The point of our present discussion is to show that in everyone's judgment any discipline deserving the name of wisdom must describe the first causes, i.e. the principles. And so, as we said earlier, the experienced person seems to be wiser than those who have just any old perception; the craftsman seems to be wiser than those with nothing more than experience; the master craftsman wiser than the manual craftsman; and the purely theoretical sciences wiser than the productive sciences. It is clear, then, that wisdom is knowledge of certain sorts of principles and causes.

2

Since this is the science we are looking for, we should consider what sorts of causes and principles wisdom is the science of. Perhaps this will become clearer if we consider our judgments about the wise person. First, we judge that he has knowledge about all things as far as possible, without, however, having it about each particular <kind of thing>. Next, the one who is capable of knowing difficult things, i.e. things not easily known by human beings, is the wise person; for sense-perception is common to everyone, and that is why it is easy and not characteristic of wisdom. Further, someone is wiser in a given science if he is more exact, and a better teacher of the causes. Again, if one of two sciences is choiceworthy for itself—<purely> for the sake of knowing it—and the other is choiceworthy <only> for the sake of its results, the first has a better claim to be wisdom than the

5. ***the Ethics***: See *EN* vi 2.

second. Moreover, the superior science has a better claim than the subordinate science; for the wise person must give orders, not take them, and those who are less wise must follow his orders, not he theirs. These, then, are our judgments about wisdom and wise people.

Of these features, we judge that knowledge about everything necessarily belongs to the one who has the best claim to universal science; for he in a way knows everything that is a subject for a science. These most universal things are also just about the most difficult for human beings to know, since they are furthest from perceptions.[6] Further, the most exact sciences are those that, more than the others, study the first things; for the sciences that are derived from fewer principles—for instance, arithmetic—are more exact than those—for instance, geometry—that require further principles. Moreover, the science that studies the causes is more of a teacher, since teachers are those who state something's causes. Besides, knowledge and science for their own sake are most characteristic of the science of the most appropriate object of knowledge. For one who chooses knowledge for its own sake will choose above all the science that is a science to the highest degree. This science is the science of the most appropriate objects of knowledge; these objects are the first things, i.e. the causes, since we know the subordinate things because of these and from these, not the other way round. Further, the most superior science—the one that is superior to any subordinate science—is the one that knows the end for which a given thing should be done; this end is something's good, and in general the end is what is best in every sort of nature.

From everything that has been said, then, we find that the name under discussion, <i.e., 'wisdom'>, applies to the same science; for we find that wisdom must study the first principles and causes, and the good, the end, is one of the causes.

The fact that this science is not productive is also clear from those who first engaged in philosophy. For human beings originally began philosophy, as they do now, because of wonder, at first because they wondered at the strange things in front of them, and later because, advancing little by little, they found greater things puzzling—what happens to the moon, the sun and the stars, how the universe comes to be. Someone who wonders and is puzzled thinks he is ignorant (this is why the myth-lover is also a philosopher in a way, since myth is composed of wonders); since, then, they engaged in philosophy to escape ignorance, they were evidently pursuing scientific knowledge <simply> for the sake of knowing, not for any further use.

What actually happened is evidence for this view. For it was only when practically everything required for necessities and for ease and <leisure-time> pursuits was supplied that they began to seek this sort of understanding; clearly, then, we do not seek it for some further use. Just as we

6. **furthest from perceptions**: cf. *APo* 72a1–5.

describe a free person as one who exists for his own sake and not for someone else's, so we also describe this as the only free science, since it is the only one that exists for its own sake.

Hence the possession of this science might justifiably be thought to be
30 beyond human capacity. For in many ways human nature is in slavery, so that, as Simonides says, 'the god alone would have this privilege', and it is unfitting for human beings to transgress their own level in their search for the science. If there actually is something in what the poets say, and the
983a divine nature is spiteful, divine spite would be likely in this case, and all those who go too far would suffer misfortunes. The divine nature, however, cannot be spiteful: as the proverb says, 'Poets tell many lies'.

Nor ought we to take any science to be more honorable than this one,
5 since the most divine science is also the most honorable, and this science that we are describing is the most divine. It alone is most divine in two ways: for the divine science <may be understood> as (i) the one that a god more than anyone else would be expected to have, or as (ii) the science of divine things. Only this science <of first causes> satisfies both conditions <for being divine>. For (i) the god seems to be among the causes of all things, and to be some sort of principle, and (ii) this is the sort of science
10 that the god, alone or more than anyone else, would be expected to have. Hence all the other sciences are more necessary than this one, but none is better.

However, the possession of this science must in a way leave us in a condition contrary to the one we were in when we began our search. For, as we said, everyone begins from wonder that something is the way it is, as
15 they wonder at toys that move spontaneously, or the turnings of the sun, or the incommensurability of the diagonal (for people who have not yet studied the cause are filled with wonder that there is something that is not measured by the smallest length). But we must end up in the contrary and (according to the proverb) the better state, the one that people achieve by
20 learning <the cause> in these other cases as well—for nothing would be more amazing to a geometer than if the diagonal turned out to be commensurable.

We have described, then, the nature of the science we are seeking, and the goal that our search and our whole line of inquiry must reach.

3

It is evident, then, that we must acquire knowledge of the original causes,
25 since we say we know a thing whenever we think we recognize its primary cause. Causes are spoken of in four ways. One of these, we say, is the being and essence; for the reason why is traced back ultimately to the account, and the primary reason why is the cause and principle. Another is the
30 matter and subject. A third is the source of the principle of motion. The

fourth is what something is for, i.e. the good—the opposite to the third cause, since it is the end of all coming to be and motion.

We have studied these causes adequately in our work on nature.[7] Still, let *983b*
us also enlist those who previously took up the investigation of beings and pursued philosophical study about the truth; for it is clear that they also mention causes and principles of some sort. A discussion of their views, then, will advance our present line of inquiry; for either we shall find some *5*
other kind of cause or we shall be more convinced about those we have just mentioned.

Most of the first philosophers, then, thought that the only principles of all things were material. For, they say, there is some <subject> that all beings come from, the first thing they come to be from and the last thing they perish into, the substance remaining throughout but changing in re- *10*
spect of its attributes. This, they say, is the element and the principle of beings. And for this reason they think that nothing either comes to be or is destroyed, on the assumption that this nature <that is the subject> persists in every change, just as we say that Socrates does not come to be without qualification when he comes to be good or musical, and that he is not *15*
destroyed when he loses these states (because the subject, Socrates himself, remains)—so also they say that nothing else either comes to be or perishes without qualification (for there must be some nature, either one or more than one, that persists while everything else comes to be from it).

But they do not all agree about the number or type of this material principle. Thales, the originator of this sort of philosophy, says it is water *20*
(that is why he also declared that the earth rests on water). Presumably he reached this judgment from seeing that what nourishes all things is wet and that the hot itself comes from the wet and is kept alive by it (and what all things come to be from is their principle). He also reached this judgment *25*
because he thought that the seeds of all things have a wet nature (and water is the principle of the nature of wet things).

Some people think that even those who first gave accounts of the gods in very ancient times, long before the present, accepted this judgment about nature. For the ancients made Oceanus and Tethys the parents of coming to *30*
be and described the oath of the gods as water, which they called Styx; for what is oldest is most honored, and what is most honored is the oath. It is perhaps unclear whether this belief about nature is in fact old or even *984a*
ancient, but at any rate this is what Thales is said to have declared about the first cause. (No one would think of including Hippon among these philosophers, given the triviality of his thought.) *5*

Anaximenes and Diogenes take air to be both prior to water and also the primary principle of all the simple bodies, while Hippasus of Metapontium and Heraclitus of Ephesus say this about fire. Empedocles takes the four

7. **on nature**: See *Phys.* ii 3.

bodies to be principles, adding earth as a fourth to the ones mentioned. These, he says, always remain, and do not come to be, except in so far as they come to be more or fewer, being combined into one and dispersed from one into many.

Anaxagoras of Clazomenae, who was older than Empedocles but wrote later, says that the principles are unlimited; for he says that practically all the uniform things[8] (for instance, water or fire) come to be and are destroyed only in the ways we have mentioned, by being combined and dispersed; they do not come to be or get destroyed in any other way, but always remain.

If one went by these views, one might judge that the material cause is the only sort of cause. But as people thus advanced, reality itself showed them the way and compelled them to search. For however true it might be that all coming to be and perishing is from one (or more than one) thing, still, why does this happen, and what is the cause? For certainly the subject does not produce change in itself. I mean, for instance, neither the wood nor the bronze causes itself to change, nor does the wood itself produce a bed, or the bronze a statue, but something else causes the change. And to search for this is (in our view) to search for the second principle—the source of the principle of motion.

Those who were the very first to undertake this line of inquiry into nature, who said that the subject is one, were quite satisfied with this. But at least some of those who said that the subject is one, as though defeated by this search <for an explanation of change>, said that the one, i.e. nature as a whole, is immobile, not only as regards coming to be and perishing (that was an old belief agreed on by all), but also as regards every other sort of change. This view is distinctive of them.

Of those who said that the universe is one element, none managed to notice this <second> cause, unless Parmenides did; he noticed it only in so far as he posited not only one cause, but also in a way two causes. Indeed those who recognize more than one element—for instance, hot and cold, or fire and earth—make it easier to state <the cause that initiates motion>, since they regard fire as having a nature that initiates motion, and water, earth, and other such things as having natures contrary to this.

After these sorts of principles were proposed by these people, other people found them inadequate to generate the nature of beings; once again, as we said, it was as though the truth itself compelled them, and so they began to search for the next sort of principle. For presumably it is unlikely that fire or earth or anything else of that sort would cause some things to be in a good and fine state and would cause other things to come to be in that state, and unlikely that people would think so; still, it was unsatisfac-

8. **uniform things**: lit. 'things with parts similar to the wholes', *homoiomerē*.

tory to entrust so great a result to chance and luck. And so when one of them said that mind is present (in nature just as in animals) as the cause of the world order and of all its arrangement, he seemed like a sober person, and his predecessors seemed like babblers in comparison. We know that Anaxagoras evidently made a start on giving such accounts, but an earlier statement of them is ascribed to Hermotimus of Clazomenae. Those who held this view posited a principle of beings that is at once both the cause of things' turning out well and the sort of cause that is the source of motion for beings.

4

One might suspect that the first to search for this sort of cause was Hesiod and anyone else who counted desire or appetite among beings as a principle, as Parmenides, for instance, also did. For he too, in describing the coming to be of the whole universe, says: 'Desire was the first of all the gods she devised'. And Hesiod says: 'Before everything else that came to be, there was chaos, and then the broad-fronted earth, and desire, preeminent among all the immortals.'[9] He assumes that there must be some cause among beings to initiate motion in things and to bring them together. Let us leave it till later to determine which of these people was the first <to discover this sort of cause>.

Moreover, the contraries of good things (i.e. disorder and ugliness no less than order and beauty) were also apparent in nature, and bad things were apparently more numerous than good things, and base things more numerous than beautiful things. For this reason someone else introduced love and strife so that each of them would be the cause of one of these two sorts of things. For if we follow Empedocles' argument, and do not confine ourselves to his mumbling way of expressing it, but attend to what he has in mind, we will find that love is the cause of good things, and strife of bad. And so, if one were to claim that in a way Empedocles said—indeed was the first to say—that the good and the bad are principles, one would perhaps be right, if the cause of all goods is the good itself.

These people, then, as we say, evidently made this much progress in fastening on two of the four causes that we distinguished in our work on nature—the matter and the principle of motion. But they did so dimly and not at all perspicuously. They were like unskilled boxers in fights, who, in the course of moving around, often land good punches, but are not guided by knowledge; in the same way these thinkers would seem not to know what they are saying, since they evidently make practically no use of these causes, except to a slight degree.

9. **'Before . . . immortals'**: An inaccurate quotation (probably, like many of Aristotle's quotations, from memory) of Hesiod, *Theogony* 116–20.

Anaxagoras, for instance, uses mind[10] as an ad hoc device[11] for the production of the universe; it is when he is puzzled about the cause of something's being necessarily as it is that he drags in mind, but in other cases he recognizes anything but mind as the cause of things that come to be. Empedocles, admittedly, uses these causes more than Anaxagoras does, but he too still makes insufficient use of them, and he does not succeed in using them consistently. At any rate, he often makes love draw things apart, and strife draw them together. For whenever strife scatters the universe into its elements, all the fire is gathered into one, and so is each of the other elements; and whenever love brings things back together again into one, the parts from each element are necessarily scattered again.

Empedocles, then, went beyond his predecessors. He was the first to distinguish this cause and to introduce it; he did not take the principle of motion to be one, but assumed different and contrary principles. Moreover, he was the first to say that there are four material elements. In fact, though, he does not use all four, but treats them as two, treating fire in its own right as one nature, and its opposites—earth, air, and water—as together constituting another; this may be gathered from studying his poems. As we say, then, this is how many principles he recognized, and this is what he said about them.

Leucippus and his colleague Democritus, on the other hand, say that the elements are the full and the empty, and that, of these, the full and solid is what is, and the empty is what is not. That is why they also say that what is is no more of a being than what is not, because body is no more of a being than the empty is. They take these to be the material causes of beings.

Those who take the substance that is the subject to be one explain how everything else comes to be by referring to the ways in which the subject is affected, taking the rare and the dense to be the principle of the ways it is affected. In the same way, Leucippus and Democritus take the differentiae[12] to be the causes of the other things. They say, however, that there are three of these differentiae—shape, order, and position. For they say that what is is differentiated only by rhythm, touching, and turning.[13] Of these rhythm is shape, touching is order, and turning is position; for A differs from N in

10. **mind**: *nous*.

11. **ad hoc device**: Literally 'machine'. Aristotle probably alludes to the theatrical device of the 'god from the machine' (*deus ex machina*), brought out on a crane above the stage at the end of the play to provide an artificially tidy ending. Cf. *Poet.* 1454a39–b3.

12. **differentiae**: i.e. of the atoms, the solid bodies referred to in general terms as 'the full'.

13. **rhythm, touching, and turning**: These are the Atomists' own terms, which Aristotle explains; the illustration using letters (*stoicheia*, also translated 'elements'; cf. 1041b15) is probably theirs too.

shape, AN from NA in order, and Z from N in position. Like the other people, however, they were too lazy to take up the question about motion and to ask from what source and in what way it arises in beings. 20

This, then, would seem to be the extent, as we say, of the earlier thinkers' search for these two causes.

6

Plato's work came after the philosophical views we have mentioned;[14] it agreed with them in most ways, but it also had distinctive features setting it apart from the philosophy of the Italians. For in his youth Plato first became familiar with Cratylus and with the Heraclitean beliefs that all perceptible things are always flowing and that there is no knowledge of them; he held these views later too. Socrates, on the other hand, was concerned with ethics and not at all with nature as a whole; he was seeking the universal in ethics and was the first to turn his thought to definitions. Plato agreed with Socrates, but because of his Heraclitean views he took these definitions to apply not to perceptible things but to other things; for, he thought, the common formula could not be of any of the perceptible things, since they are always changing. Beings of this sort <that definitions are of>, then, he called Ideas, and he said that perceptible things are apart from these, and are all called after them, since the things with the same names as the Forms are what they are[15] by participation in them. *987a29* *30* *987b* *5* *10*

In speaking of 'participation' he changed only the name; for the Pythagoreans say that things are what they are by imitating numbers, and Plato (changing the name) said they are what they are by participating <in Forms>. But they left it to others to investigate what it is to participate in or to imitate Forms.

Further, he says that, apart from perceptible things and Forms, there are also mathematical objects in between. These differ from perceptible things in being everlasting and immobile; they differ from Forms in that there are many of the same kind, whereas there is only one Form for each kind of thing.[16] *15*

Since the Forms are the causes of other things, he thought that their elements are the elements of all beings. The great and the small, then, as matter, and the one, as substance, are principles; for Forms come from these, by participating in the one. And yet he said, agreeing with the Pythagoreans, that the one is substance, and that it is not said to be one by *20*

14. **views we have mentioned**: Aristotle has been discussing the Eleatics and Pythagoreans, whom he calls the 'Italians'.

15. **are what they are**: Lit. just 'are', and hence perhaps 'exist' (and also in the rest of the paragraph).

16. **there is only one Form for each kind of thing**: Lit. 'each Form itself is only one'.

being something else. He also agreed with them in saying that numbers are
25 the causes of the being of other things; but in positing a duality instead of treating the indeterminate as one, and in taking the great and small to constitute the indeterminate, he held a distinctive view of his own. Moreover, in his view numbers exist apart from perceptible things; whereas the Pythagoreans take the objects themselves to be numbers, and do not place mathematical objects between perceptible things and Forms.

30 His claim that the one and numbers exist apart from the other objects (in contrast to the Pythagorean view) and his introduction of the Forms were the result of his investigation of arguments; for none of his predecessors engaged in dialectic. He made the other nature <besides the One> a duality because he thought that numbers (except the primes) could be neatly
988a produced from the duality, as though from something malleable.

What actually happens, though, is the contrary of this, and it is implausible to think it would happen in the way they <the Platonists> say. For in their view many things are made out of the matter, but the Form generates only once; in fact, however, only one table is apparently made out of one <bit of> matter, whereas the agent who applies the form, though he is one,
5 makes many tables. Similarly, in the case of male and female, the female is impregnated from one copulation, whereas the male impregnates many females. And yet these things are imitations of those principles <that they believe in>.

This, then, was what Plato determined about the questions we are investigating. It is evident from what has been said that he used only two causes,
10 the cause involving the what-it-is and the material cause; for the Forms are causes of the what-it-is of other things, and the one is the cause of the what-it-is of Forms. The nature of the matter that is the subject for the Forms (in the case of perceptible things) and for the one (in the case of Forms) is also evident: it is the duality, the great and the small. Further, he
15 has assigned the cause of good and bad to the elements, one to each, as we say some earlier philosophers, such as Empedocles and Anaxagoras, also sought to do.

9

990a34 . . . As for those who posited Ideas, the first objection is that in seeking to
990b grasp the causes of the beings in this world, they introduced different things, equal in number to them. It is as though someone wanted to count things and thought he could not do it if there were fewer of them, but
5 could do it if he added more. For the Forms they resorted to in their search for the causes of things in this world are practically equal in number to—or at any rate are no fewer than—the things in this world. For take each <kind of> thing that has a one over many, both substances and non-substances, both things in this world and everlasting things; in each case there is some <one over many> that has the same name <as the many>.

Further, none of the proofs we[17] offer to show that there are Forms appears to succeed; for some of them are invalid, while some also yield Forms of things that we think have no Forms. For the arguments from the sciences yield Forms of all the things of which there are sciences; the one over many yields Forms even of negations; and the argument from thinking about something that has perished yields Forms of things that perish, since there is an appearance[18] of these. Further, among the more accurate arguments, some produce Ideas of relatives, whereas we deny that these are a kind of things that are in their own right; others introduce the Third Man.

And in general the arguments for Forms undermine the existence of things that matter more to us than the existence of the Ideas does. For they imply that number, not duality, is first and that what is relative is prior to what is in its own right, and they lead to all the other <unacceptable> conclusions that some people have been led to believe by following the beliefs about the Ideas, even though these beliefs conflict with their own principles.

Further, the reasoning that leads us to say that there are Ideas also yields Forms of many other things as well as of substances. For a thought is one not only in the case of substances but also in other cases; there are sciences of other things as well as of substance; and thousands of other such difficulties arise.

On the other hand, it is necessary, and follows from the beliefs about Forms, that if things can participate in Forms, only substances can have Ideas; for a thing does not participate in a Form coincidentally, but insofar as it is not said of a subject. (If, for instance, something participates in the Double itself, it also participates in the Everlasting, but coincidentally, since it is coincidental that the Double is everlasting.) Hence the Forms will be substances. But the same things signify substances among the Forms as in this world—otherwise what will the claim that there is something apart from these things, the one over many, amount to? And if the Idea and the things participating in it have the same form, they will have something in common—for why should <what it is to be> two be one and the same thing in all the perishable twos and in all the many everlasting twos, but not one and the same thing in the Two itself and in some particular two? But if they do not have the same form, they will be <merely> homonymous; it will be like calling both Callias and a wooden <statue> a man, when one has observed no common <nature> that they share.

One might be especially puzzled about what on earth Forms contribute to perceptible things, either to those that are everlasting or to those that come to be and perish; for they cause neither motion nor any change in

17. **we**: Aristotle thinks of himself as one of the Platonic school—though he does not endorse their position. In the rest of this chapter 'we' and 'our' also refer to the Platonists, not to Aristotle's independent views.

18. **appearance**: *phantasma*, usually rendered 'object of appearance'.

them. Nor do they contribute to knowledge of other things, since they are not their substance—if they were, they would be in the other things. Nor do they contribute to the being of other things, since Forms are not present
15 in the things that participate in them. For if they were present, they might perhaps be thought to be causes, as white is if it is mixed in a white object. This argument was first stated by Anaxagoras and then by Eudoxus and certain others. It is easily upset, since it is easy to collect many impossible consequences that challenge such a belief.

20 Nor can the other things be from Forms in any of the ways things are normally said to be from something. And to say that Forms are patterns and that other things participate in them is empty talk, mere poetic metaphors. For what is it that looks to the Ideas when it produces things? And it is possible for one thing to be, or to come to be, like another without being
25 copied from it, so that whether or not Socrates exists someone like Socrates might come to be; and clearly the same would be true even if Socrates were everlasting. Further, there will be many patterns of the same thing, hence many Forms; the Forms of man, for instance, will be Animal and Biped as
30 well as Man-itself. Further, the Forms will be patterns not only of perceptible things, but also of themselves—the genus, for instance, of its species—
991b so that the same thing will be both pattern and copy.

Further, it would seem impossible for a substance to be separate from what it is the substance of. How, then, if the Ideas are the substances of things, could they be separate from them?

According to the *Phaedo*,[19] the Forms are the causes both of being and of
5 coming to be. But what participates in the Forms does not come to be, even if the Forms exist, unless something initiates the motion. And in addition to these <natural things>, many things—for instance, a house or a ring—which in our view have no Forms, come to be. Hence it is clearly also possible for the <natural> things to be and to come to be because of causes of the sort just mentioned.

10 Further, if the Forms are numbers, how can they be causes? Is it because beings are other numbers, so that one number, for instance, is man, another is Socrates, and another is Callias? If so, why are one lot of numbers causes of the other lot? It makes no difference if the Forms are everlasting and the other things are not. But if it is because things in this world—for instance, a harmony—are ratios of numbers, it is clear that the things of which they are ratios are some one <kind of> thing. But if there is this one
15 thing, i.e. the matter, then evidently the numbers themselves will also be ratios of one thing to another. If, for instance, Callias is a numerical ratio of fire, earth, water, and air, then his Idea will also be the number of certain other subjects. And Man-itself, even if it is in some way numerical,
20 will nonetheless be a numerical ratio of certain things, not <properly> a number. This argument, then, does not show that any Idea is a number.

19. ***Phaedo***: See Plato, *Phaedo* 100a–105c.

. . . In general, it is impossible to find the elements of beings without distinguishing the ways they are spoken of, since in fact beings are spoken of in many ways. It is especially impossible to find them if we search in this way for the sorts of elements that compose beings. For what elements compose acting or being affected or the straight? Presumably these cannot be found; at most the elements of substances can be found. Hence it is incorrect either to seek the elements of all beings or to think one has found them. *992b18* *20*

And how could one even learn the elements of all things? For clearly one cannot begin with previous cognition. If, for instance, we are learning geometry, we may have previous knowledge of other things <outside geometry>, but we have no previous cognition about the subject matter of the science we are to learn about; the same is true in other cases. Hence if there is some science of all things, such as some say there is, we could not have previous cognition of anything before we learn this science. And yet all learning, either through demonstration or through definitions, relies on previous cognition of either all or some things; for one must previously know the elements of the definition, and they must be well known; the same is true for learning through induction. Then is this science actually innate? If so, it is remarkable that we manage not to notice that we possess the supreme science. *25* *30* *993a*

Further, how is one to acquire recognition of the elements, and how is this knowledge to be made clear? For there is a puzzle here too, since our answers might be disputed, as in the case of certain syllables; for some say that ZA is from S, D, and A, while others say it is a different sound, and none of the well-known ones. *5*

Further, how could one recognize perceptible things without perception? And yet one would have to, if the elements composing all things are indeed the same, as complex sounds are <composed of> their proper elements. *10*

Book IV

1

There is a science that studies being insofar as it is being,[20] and also the properties of being in its own right. It is not the same as any of the so-called special sciences. For none of them considers being quite generally, in so far as it is being; rather, each of them cuts off some part of being and studies the relevant coincident of that part, as, for instance, the mathematical sciences do. *1003a21* *25*

20. **insofar as**: or 'qua', *hē(i)*. For this way of focussing on a special set of properties of a given object see INSOFAR AS. Aristotle is not referring to some special kind of being (as though something had the properties of being qua being, but not the properties of any specific sort of being). He is thinking of ordinary beings studied with reference to the properties that belong to them as beings. For this explanation see 1004b10–17.

BOOK II

1

So much for the views on the soul that our predecessors have handed down. Let us now return and make a new start, trying to determine what the soul is and what account of it best applies to all souls in common. *412a3* *5*

We say, then, that one kind of being is substance. One sort of substance is matter, which is not a this in its own right; another sort is shape or form, which makes <matter> a this; and the third sort is the compound of matter and form. Matter is potentiality, and form is actuality; actuality is either, for instance, <the state of> knowing or <the activity of> attending <to what one knows>. *10*

What seem to be substances most of all are bodies, and especially natural bodies, since these are the sources[7] of the others. Some natural bodies are alive and some are not—by 'life' I mean self-nourishment, growth, and decay.[8] *15*

It follows that every living natural body is a substance and, <more precisely,> substance as compound. But since every such body is also this sort of body—i.e. the sort that is alive—the soul cannot be a body, since the body <is substance> as subject and matter and is not said of a subject. The soul, then, must be substance as the form of a natural body that is potentially alive. Now, substance is actuality; hence the soul will be the actuality of this specific sort of body. *20*

Actuality is spoken of in two ways—one corresponding to <the state of> knowing and the other to attending to <what one knows>. Evidently, then, the soul is the same sort of actuality that knowing is. For both being asleep and being awake require the presence of the soul; being awake corresponds to attending and being asleep to the state of inactive knowing. Moreover, in the same subject the state of knowing precedes the activity. Hence the soul is the first actuality[9] of a natural body that is potentially alive. *25*

The sort of natural body that is potentially alive is an organic one. The parts of plants are also organs, though altogether simple ones; the leaf, for instance, is a shelter for the shell, and the shell for the fruit, and similarly the roots correspond to a mouth, since both draw in food. And so, if we must give an account common to every sort of soul, we will say that the soul is the first actuality of a natural organic body. *412b* *5*

7. **sources**: *archai*. See PRINCIPLE #2. Aristotle means that artifacts are made from natural bodies; cf. *Phys*. 192b19.

8. **self- . . . decay**. 'Self-' governs 'growth' and 'decay' as well as 'nourishment', since in living creatures these all have an internal *archē*.

9. **first actuality**: Aristotle applies this term to the state exemplified by having knowledge, contrasted with attending to what one knows.

Hence we need not ask whether the soul and body are one, any more than we need to ask this about the wax and the seal[10] or, in general, about the matter and the thing of which it is the matter. For while one and being are spoken of in several ways, the actuality <and what it actualizes> are fully one.[11]

10 We have said in general, then, that the soul is substance that corresponds to the account; and this <sort of substance> is the essence of this sort of body. Suppose some instrument—an axe, for instance—were a natural body; then being an axe would be its substance, and its soul would also be this <i.e. being an axe>; and if this substance were separated from it, it *15* would no longer be an axe, except homonymously. In fact, however, it is an axe; for the soul is not the essence and form of this sort of body but of the specific sort of natural body that has in itself a principle of motion and rest.

We must also study this point by applying it to the parts <of living things>. If the eye, for instance, were an animal, sight would be its soul. *20* For sight is the eye's substance that corresponds to the account, while the eye is the matter of sight; if an eye loses its sight, it is no longer an eye, except homonymously, as a stone eye or a painted eye is. We must apply this point about the part to the whole living body; for what holds for the relation of part <of the faculty of perception> to part <of the body> holds *25* equally for the relation of the whole <faculty of> perception to the whole perceptive body, insofar as it is perceptive. The sort of body that is potentially alive is not the one that has lost its soul but the one that has it; and the seed or the fruit is potentially this sort of body.

Being awake, then, is <a second> actuality, corresponding to cutting or *413a* seeing. The soul is <a first> actuality, corresponding to <the faculty of> sight and to the potentiality of the instrument <to cut>; and the body is potentially this. And as an eye is the pupil plus sight, so an animal is soul plus body.

It is clear, then, that the soul is not separable from the body. At least, *5* some parts of it are not, if it is divisible into parts; for the actuality of some <parts of the soul> is <the actuality> of the parts <of the body> themselves. Still, some <parts of the soul> might well not be actualities of any body and might therefore be separable. Moreover, it is still unclear whether the soul is the actuality of the body in the way a sailor is of a ship.

10 Let this, then, be our outline definition and sketch of the soul.

10. **seal**: Or perhaps 'shape'.

11. **the actuality . . . one**: Or perhaps: 'The strict sense <of 'one'> is that of actuality'.

2

Since what is perspicuous and better known from the point of view of reason emerges from what is less perspicuous but more evident, we must start again and apply this approach to the soul. For the defining account must not confine itself, as most definitions do, to showing the fact; it must also contain and indicate its cause. The accounts that are customarily stated in formulae are like conclusions, so that if we ask, for instance, what squaring is, we are told that it is making an equilateral rectangle equal to an oblong rectangle. This sort of formula is an account of the conclusion, whereas the one that defines squaring as the finding of the mean states the cause of the fact.

To begin our inquiry, then, we say that living is what distinguishes things with souls from things without souls. Living is spoken of in several ways—for instance, understanding, perception, locomotion and rest, and also the motion involved in nourishment, and decay and growth. And so whatever has even one of these is said to be alive.

This is why all plants as well <as animals> seem to be alive, since they evidently have an internal potentiality and principle through which they both grow and decay in contrary directions. For they grow up and down and in all directions alike, not just up rather than down; they are continually nourished, and they stay alive as long as they can absorb nourishment. This <sort of life> can be separated from the others, but in mortal things the others cannot be separated from it. This is evident in the case of plants, since they have no other potentiality of the soul.

This principle, then, is what makes something alive. What makes something an animal is primarily perception; for whatever has perception, even without motion or locomotion, is said to be an animal, not simply to be alive. Touch is the primary type of perception belonging to all animals, and it can be separated from the other senses, just as the nutritive <potentiality> can be separated from touch and the other senses.

The part of the soul that belongs to plants as well as to animals is called nutritive; and all animals evidently have the sense of touch. Later we will state the explanation of each of these facts.[12] For now let us confine ourselves to saying that the soul is the principle of the <potentialities> we have mentioned—for nutrition, perception, understanding, and motion—and is defined by them.

Is each of these a soul or a part of a soul? And if a part, is it the sort that is separable only in account, or is it also separable in place? In some cases the answer is easily seen, but some parts raise a puzzle. For some plants are evidently still alive when they are cut <from one plant> and are separated

12. **explanation . . . facts:** A teleological explanation is given in iii 12 (not reprinted in this volume).

from each other; for, we assume, the soul in each plant is actually one but
20 potentially more than one. And we see that the same is also true of other differentiae of the soul. <This is clear> in the case of insects that are cut in two. For each part has both perception and locomotion; if it has perception, then it also has appearance and desire. For if it has perception, then it has pain and pleasure, and if it has these, then it necessarily also has appetite.

25 So far, however, nothing is evident about understanding and the potentiality for theoretical study. It would seem to be a different kind of soul,[13] and the only part that can be separated,[14] in the way in which the everlasting can be separated from the perishable.

It evidently follows, however, that the other parts of the soul are not
30 separable, as some say they are. But they evidently differ in account; for perceiving is different from believing, and hence being the perceptive part is different from being the believing part, and so on for each of the other parts mentioned.

Further, animals are differentiated by the fact that some of them have all
414a of these parts, some have some of them, and some have only one; we should investigate the reason for this later. Practically the same is true of the senses; some animals have all of them, some have some of them, and some have only the most necessary one, touch.

5 When we say we live and perceive by something, we speak in two ways, just as we do when we say we know by something. For we say we know either by knowledge or by the soul, since we say we know by each of these; and similarly, we are healthy in one way by health, in another way by some part or the whole of the body. In these cases, knowledge or health is a sort
10 of shape and form, i.e. an account and a sort of actuality of what is receptive of knowledge or health; for the actuality of the agent seems to occur in the thing that is acted on and suitably disposed.

Now the soul is that by which we primarily live, perceive, and think, and
15 so it will be an account and a form, not matter and subject. For substance, as we said, is spoken of in three ways, as form, matter, and the compound of both; of these, matter is potentiality, form actuality. Since, therefore, the compound of body and soul is ensouled, body is not the actuality of soul, but the soul is the actuality of some sort of body.

20 This vindicates the view of those who think that the soul is not a body but requires a body; for it is not a body, but it belongs to a body, and for that reason it is present in a body, and in this sort of body. Our pre-

13. **different kind of soul**: Or perhaps 'different kind (*genos*) of thing from soul'.

14. **and the . . . separated**: Read *endechesthai*, 413b26. OCT: 'and it is the only part that can be separated'.

decessors were wrong, then, in trying to fit the soul into a body without further determining the proper sort of body, even though it appears that not just any old thing receives any old thing. Our view, however, is quite reasonable, since a thing's actuality naturally comes to be in what has the potentiality for it, i.e. in the proper matter.

It is evident from this, then, that the soul is a certain sort of actuality and form of what has the potentiality to be of this sort.

3

As we said, some things have all the potentialities of the soul that were previously mentioned, while other things have some of these potentialities, and others have only one. The potentialities we mentioned were those for nutrition, perception, desire, locomotion, and understanding. Now, plants have only the nutritive part. Other things have the nutritive part and also the perceptive part, and if they have the perceptive part, they also have the desiring part. For desire includes appetite, emotion, and wish; but all animals have at least the sense of touch, and whatever has any perception has pleasure and pain and finds things pleasant or painful. Whatever finds things pleasant and painful also has appetite, since appetite is desire for what is pleasant.

Further, animals have the perception of nourishment; for touch is perception of nourishment, since all living things are nourished by things that are dry and wet and hot and cold, and touch is the perception of these. Animals are nourished by other objects of perception[15] only coincidentally, since neither sound nor color nor smell contributes anything to nourishment, and flavor is an object of touch. Now, hunger and thirst are appetites for the dry and hot, and the wet and cold, respectively, while flavor is a sort of pleasant relish belonging to these.

We must make these points clear later on. For now let us confine ourselves to saying that living things that have touch also have desire. Whether they all have appearance is not clear, and must be considered later.

Besides these parts, some things have the locomotive part. Others—human beings, for instance, and any thinking being that is different from, or superior to, a human being[16]—also have the thinking part and intellect.

Clearly, then, soul will have one single account in the same way that figure has; for just as figure is nothing besides the triangle and the figures that follow in order, so equally the soul is nothing besides those <potenti-

15. **other objects of perception**: Read *tois d'allois tōn aisthētōn*.

16. **any thinking . . . human being**: Or: 'anything else that is similar or superior to a human being'.

NICOMACHEAN ETHICS

There are three works of moral philosophy in the Aristotelian corpus: the Eudemian Ethics, *the* Magna Moralia *(considered by many scholars not to be a genuine work of Aristotle), and the* Nicomachean Ethics. *Of these it is the last—one of the greatest works in all of moral philosophy—that represents the culmination of his mature thought.*

In the extensive excerpts provided below, Aristotle discusses happiness and human good (Book I); the nature of moral virtue (Book II); moral responsibility, deliberation, and praise and blame (Book III); justice (Book V); the intellectual virtues and practical wisdom (Book VI); weakness of the will (Book VII); and happiness and contemplation (Book X).

Book I

1

1094a Every craft and every investigation, and likewise every action and decision, seems to aim at some good; hence the good has been well described as that at which everything aims.

However, there is an apparent difference among the ends aimed at. For the end is sometimes an activity, sometimes a product beyond the activity; *5* and when there is an end beyond the action, the product is by nature better than the activity.

Since there are many actions, crafts and sciences, the ends turn out to be many as well; for health is the end of medicine, a boat of boatbuilding, *10* victory of generalship, and wealth of household management.

But whenever any of these sciences are subordinate to some one capacity—as e.g. bridlemaking and every other science producing equipment for horses are subordinate to horsemanship, while this and every action in warfare are in turn subordinate to generalship, and in the same way other sciences are subordinate to further ones—in each of these the end of the *15* ruling science is more choiceworthy than all the ends subordinate to it, since it is the end for which those ends are also pursued. And here it does not matter whether the ends of the actions are the activities themselves, or some product beyond them, as in the sciences we have mentioned.

Translated by T. Irwin

2

Suppose, then, that (a) there is some end of the things we pursue in our actions which we wish for because of itself, and because of which we wish for the other things; and (b) we do not choose everything because of something else, since (c) if we do, it will go on without limit, making desire empty and futile; then clearly (d) this end will be the good, i.e. the best good.

Then surely knowledge of this good is also of great importance for the conduct of our lives, and if, like archers, we have a target to aim at, we are more likely to hit the right mark.[1] If so, we should try to grasp, in outline at any rate, what the good is, and which science or capacity is concerned with it.

It seems to concern the most controlling science, the one that, more than any other, is the ruling science. And political science apparently has this character.

(1) For it is the one that prescribes which of the sciences ought to be studied in cities, and which ones each class in the city should learn, and how far.

(2) Again, we see that even the most honored capacities, e.g. generalship, household management and rhetoric, are subordinate to it.

(3) Further, it uses the other sciences concerned with action, and moreover legislates what must be done and what avoided.

Hence its end will include the ends of the other sciences, and so will be the human good.

<This is properly called political science;> for though admittedly the good is the same for a city as for an individual, still the good of the city is apparently a greater and more complete good to acquire and preserve. For while it is satisfactory to acquire and preserve the good even for an individual, it is finer and more divine to acquire and preserve it for a people and for cities. And so, since our investigation aims at these <goods, for an individual and for a city>, it is a sort of political science.

3

Our discussion will be adequate if its degree of clarity fits the subject-matter; for we should not seek the same degree of exactness in all sorts of arguments alike, any more than in the products of different crafts.

Moreover, what is fine and what is just, the topics of inquiry in political science, differ and vary so much that they seem to rest on convention only,

1. **and if . . . right mark:** Or: 'like archers who have a target to aim at, we are more likely to hit what is right <if we know what the target is>.' The version in the text implies that knowledge of the good gives us a target we would otherwise lack (cf. Plato, *Rep.* 519c2); the alternative version does not imply this.

not on nature. Goods, however, also vary in the same sort of way, since they cause harm to many people; for it has happened that some people have been destroyed because of their wealth, others because of their bravery.

Since these, then, are the sorts of things we argue from and about, it will
20 be satisfactory if we can indicate the truth roughly and in outline; since <that is to say> we argue from and about what holds good usually <but not universally>, it will be satisfactory if we can draw conclusions of the same sort.

Each of our claims, then, ought to be accepted in the same way <as claiming to hold good usually>, since the educated person seeks exactness
25 in each area to the extent that the nature of the subject allows; for apparently it is just as mistaken to demand demonstrations from a rhetorician as to accept <merely> persuasive arguments from a mathematician.

Further, each person judges well what he knows, and is a good judge
1095a about that; hence the good judge in a particular area is the person educated in that area, and the unconditionally good judge is the person educated in every area.

This is why a youth is not a suitable student of political science; for he lacks experience of the actions in life which political science argues from and about.

Moreover, since he tends to be guided by his feelings, his study will be
5 futile and useless; for its end is action, not knowledge. And here it does not matter whether he is young in years or immature in character, since the deficiency does not depend on age, but results from being guided in his life and in each of his pursuits by his feelings; for an immature person, like an incontinent person, gets no benefit from his knowledge.

10 If, however, we are guided by reason in forming our desires and in acting, then this knowledge will be of great benefit.

These are the preliminary points about the student, about the way our claims are to be accepted, and about what we intend to do.

4

Let us, then, begin again. Since every sort of knowledge and decision
15 pursues some good, what is that good which we say is the aim of political science? What <in other words> is the highest of all the goods pursued in action?

As far as its name goes, most people virtually agree <about what the good is>, since both the many and the cultivated call it happiness, and
20 suppose that living well and doing well are the same as being happy. But they disagree about what happiness is, and the many do not give the same answer as the wise.

For the many think it is something obvious and evident, e.g. pleasure, wealth or honor, some thinking one thing, others another; and indeed the

same person keeps changing his mind, since in sickness he thinks it is health, in poverty wealth. And when they are conscious of their own ignorance, they admire anyone who speaks of something grand and beyond them.

<Among the wise,> however, some used to think that besides these many goods there is some other good that is something in itself, and also causes all these goods to be goods.

Presumably, then, it is rather futile to examine all these beliefs, and it is enough to examine those that are most current or seem to have some argument for them.

We must notice, however, the difference between arguments from origins and arguments towards origins. For indeed Plato was right to be puzzled about this, when he used to ask if <the argument> set out from the origins or led towards them—just as on a race course the path may go from the starting-line to the far end,[2] or back again.

For while we should certainly begin from origins that are known, things are known in two ways; for some are known to us, some known unconditionally <but not necessarily known to us>. Presumably, then, the origin *we* should begin from is what is known to *us*.

This is why we need to have been brought up in fine habits if we are to be adequate students of what is fine and just, and of political questions generally. For the origin we begin from is the belief that something is true, and if this is apparent enough to us, we will not, at this stage, need the reason why it is true in addition; and if we have this good upbringing, we have the origins to begin from, or can easily acquire them.[3] Someone who neither has them nor can acquire them should listen to Hesiod: 'He who understands everything himself is best of all; he is noble also who listens to one who has spoken well; but he who neither understands it himself nor takes to heart what he hears from another is a useless man.'

5

But let us begin again from <the common beliefs> from which we digressed. For, it would seem, people quite reasonably reach their conception of the good, i.e. of happiness, from the lives <they lead>; for there are

2. **far end:** Lit. 'limit'. Aristotle thinks of a Greek stadium, in which the midpoint of the race is at the end farthest from the starting line.

3. **For the origin . . . acquire them:** Lit. 'For the origin is the that, and if this appears adequately, he will not at all need in addition the because. Such a one has origins or would get them easily.' The origins we are looking for are those known without qualification, and we do not have them simply as a result of good upbringing; these tell us the 'because' or 'reason why'. The origins we have from good upbringing are simply those that allow us to begin the inquiry. See 1095a2, 1179b25.

19 roughly three most favoured lives—the lives of gratification, of political
16 activity, and, third, of study.
17 The many, the most vulgar, would seem to conceive the good and happi-
19 ness as pleasure, and hence they also like the life of gratification. Here they
20 appear completely slavish, since the life they decide on is a life for grazing animals; and yet they have some argument in their defense, since many in positions of power feel the same way as Sardanapallus[4] <and also choose this life>.

The cultivated people, those active <in politics>, conceive the good as honor, since this is more or less the end <normally pursued> in the political life. This, however, appears to be too superficial to be what we are
25 seeking, since it seems to depend more on those who honor than on the one honored, whereas we intuitively believe that the good is something of our own and hard to take from us.

Further, it would seem, they pursue honor to convince themselves that they are good; at any rate, they seek to be honored by intelligent people, among people who know them, and for virtue. It is clear, then, that in the
30 view of active people at least, virtue is superior <to honor>.

Perhaps, indeed, one might conceive virtue more than honor to be the end of the political life. However, this also is apparently too incomplete <to be the good>. For, it seems, someone might possess virtue but be asleep or
1096a inactive throughout his life; or, further, he might suffer the worst evils and misfortunes; and if this is the sort of life he leads, no one would count him happy, except to defend a philosopher's paradox. Enough about this, since it has been adequately discussed in the popular works[5] also.

5 The third life is the life of study, which we will examine in what follows.

The money-maker's life is in a way forced on him <not chosen for itself>; and clearly wealth is not the good we are seeking, since it is <merely> useful, <choiceworthy only> for some other end. Hence one would be more inclined to suppose that <any of> the goods mentioned earlier is the end, since they are liked for themselves. But apparently they are not <the
10 end> either; and many arguments have been presented against them. Let us, then, dismiss them.

7

15 But let us return once again to the good we are looking for, and consider just what it could be, since it is apparently one thing in one action or craft, and another thing in another; for it is one thing in medicine, another in generalship, and so on for the rest.

4. **Sardanapallus:** An Assyrian king who lived in legendary luxury.

5. **the popular works:** (*enkuklia*) Probably these are by Aristotle himself, and are the same as the 'popular' (or 'external', *exōterika*) works of 1102a26.

What, then, is the good in each of these cases? Surely it is that for the sake of which the other things are done; and in medicine this is health, in generalship victory, in house-building a house, in another case something else, but in every action and decision it is the end, since it is for the sake of the end that everyone does the other things.

And so, if there is some end of everything that is pursued in action, this will be the good pursued in action; and if there are more ends than one, these will be the goods pursued in action.

Our argument has progressed, then, to the same conclusion <as before, that the highest end is the good>; but we must try to clarify this still more.

Though apparently there are many ends, we choose some of them, e.g. wealth, flutes and, in general, instruments, because of something else; hence it is clear that not all ends are complete. But the best good is apparently something complete. Hence, if only one end is complete, this will be what we are looking for; and if more than one are complete, the most complete of these will be what we are looking for.

An end pursued in itself, we say, is more complete than an end pursued because of something else; and an end that is never choiceworthy because of something else is more complete than ends that are choiceworthy both in themselves and because of this end; and hence an end that is always <choiceworthy, and also> choiceworthy in itself, never because of something else, is unconditionally complete.

Now happiness more than anything else seems unconditionally complete, since we always <choose it, and also> choose it because of itself, never because of something else.

Honor, pleasure, understanding and every virtue we certainly choose because of themselves, since we would choose each of them even if it had no further result, but we also choose them for the sake of happiness, supposing that through them we shall be happy. Happiness, by contrast, no one ever chooses for their sake, or for the sake of anything else at all.

The same conclusion <that happiness is complete> also appears to follow from self-sufficiency, since the complete good seems to be self-sufficient.

Now what we count as self-sufficient is not what suffices for a solitary person by himself, living an isolated life, but what suffices also for parents, children, wife and in general for friends and fellow-citizens, since a human being is a naturally political <animal>. Here, however, we must impose some limit; for if we extend the good to parents' parents and children's children and to friends of friends, we shall go on without limit; but we must examine this another time.

Anyhow, we regard something as self-sufficient when all by itself it makes a life choiceworthy and lacking nothing; and that is what we think happiness does.

Moreover, we think happiness is most choiceworthy of all goods, since it is not counted as one good among many. If it were counted as one among

many, then, clearly, we think that the addition of the smallest of goods would make it more choiceworthy; for <the smallest good> that is added becomes an extra quantity of goods <so creating a good larger than the original good>, and the larger of two goods is always more choiceworthy. <But we do not think any addition can make happiness more choiceworthy; hence it is most choiceworthy.>

Happiness, then, is apparently something complete and self-sufficient, since it is the end of the things pursued in action.

But presumably the remark that the best good is happiness is apparently something <generally> agreed, and what we miss is a clearer statement of what the best good is.

Well, perhaps we shall find the best good if we first find the function of a human being. For just as the good, i.e. <doing> well, for a flautist, a sculptor, and every craftsman, and, in general, for whatever has a function and <characteristic> action, seems to depend on its function, the same seems to be true for a human being, if a human being has some function.

Then do the carpenter and the leatherworker have their functions and actions, while a human being has none, and is by nature idle, without any function? Or, just as eye, hand, foot and, in general, every <bodily> part apparently has its functions, may we likewise ascribe to a human being some function besides all of theirs?

What, then, could this be? For living is apparently shared with plants, but what we are looking for is the special function of a human being; hence we should set aside the life of nutrition and growth. The life next in order is some sort of life of sense-perception; but this too is apparently shared, with horse, ox and every animal. The remaining possibility, then, is some sort of life of action of the <part of the soul> that has reason.

Now this <part has two parts, which have reason in different ways>, one as obeying the reason[6] <in the other part>, the other as itself having reason and thinking.[7] <We intend both.> Moreover, life is also spoken of in two ways <as capacity and as activity>, and we must take <a human being's special function to be> life as activity, since this seems to be called life to a fuller extent.

(a) We have found, then, that the human function is the soul's activity that expresses reason <as itself having reason> or requires reason <as obeying reason>. (b) Now the function of *F*, e.g. of a harpist, is the same in kind, so we say, as the function of an excellent *F*, e.g. an excellent harpist.

6. **obeying the reason:** Cf. 1102b26.

7. **'One as obeying the reason'** (a4) = 'requires reason'—lit. 'not without reason—(a8) and refers to the role of non-rational desires. **'Itself having reason and thinking'** (a5) = 'expresses reason'—lit. 'according to reason'—(a7) and refers to the role of reason and rational desires. On these rational and non-rational parts of the soul see 1102b26.

(c) The same true unconditionally in every case, when we add to the function the superior achievement that expresses the virtue; for a harpist's function, e.g. is to play the harp, and a good harpist's is to do it well. (d) Now we take the human function to be a certain kind of life, and take this life to be the soul's activity and actions that express reason. (e) <Hence by (c) and (d)> the excellent man's function is to do this finely and well. (f) Each function is completed well when its completion expresses the proper virtue. (g) Therefore <by (d), (e) and (f)> the human good turns out to be the soul's activity that expresses virtue.

And if there are more virtues than one, the good will express the best and most complete virtue. Moreover, it will be in a complete life. For one swallow does not make a spring, nor does one day; nor, similarly, does one day or a short time make us blessed and happy.

This, then, is a sketch of the good; for, presumably, the outline must come first, to be filled in later. If the sketch is good, then anyone, it seems, can advance and articulate it, and in such cases time is a good discoverer or <at least> a good co-worker. That is also how the crafts have improved, since anyone can add what is lacking <in the outline>.

However, we must also remember our previous remarks, so that we do not look for the same degree of exactness in all areas, but the degree that fits the subject-matter in each area and is proper to the investigation. For the carpenter's and the geometer's inquiries about the right angle are different also; the carpenter's is confined to the right angle's usefulness for his work, whereas the geometer's concerns what, or what sort of thing, the right angle is, since he studies the truth. We must do the same, then, in other areas too, <seeking the proper degree of exactness>, so that digressions do not overwhelm our main task.

Nor should we make the same demand for an explanation in all cases. *1098b* Rather, in some cases it is enough to prove that something is true without explaining why it is true. This is so, e.g. with origins, where the fact that something is true is the first principle, i.e. the origin.[8]

Some origins are studied by means of induction, some by means of perception, some by means of some sort of habituation, and others by other means. In each case we should try to find them out by means suited to their nature, and work hard to define them well. For they have a great

8. **Rather, in . . . i.e. the origin:** Lit. 'But it is enough in some cases for the that to be proved well, e.g. in the case of origins and the that is first and origin.' Here Aristotle uses the phrase 'the that' for the ORIGINS known without qualification, i.e. the first principles of his theory (in this case, the account of happiness), and not (as in 1095b6) for the origins known to us, the starting-points in our inquiry. Starting-points are beliefs that need some further 'because'. First principles provide the necessary 'because', and a further 'because' cannot be given for the first principles, since they are first, and themselves give the 'because'.

influence on what follows; for the origin seems to be more than half the whole,[9] and makes evident the answer to many of our questions.

8

However, we should examine the origin not only from the conclusion and
10 premises <of a deductive argument>, but also from what is said about it; for all the facts harmonize with a true account, whereas the truth soon clashes with a false one.

Goods are divided, then, into three types, some called external, some goods of the soul, others goods of the body; and the goods of the soul are
15 said[10] to be goods to the fullest extent and most of all, and the soul's actions and activities are ascribed to the soul. Hence the account <of the good> is sound, to judge by this belief anyhow—and it is an ancient belief agreed on by philosophers.

Our account is also correct in saying that some sort of actions and activities are the end; for then the end turns out to be a good of the soul,
20 not an external good.

The belief that the happy person lives well and does well in action also agrees with our account, since we have virtually said that the end is a sort of living well and doing well in action.

Further, all the features that people look for in happiness appear to be true of the end described in our account. For to some people it seems to be
25 virtue; to others intelligence; to others some sort of wisdom; to others again it seems to be these, or one of these, involving pleasure or requiring its addition; and others add in external prosperity as well.[11]

Some of these views are traditional, held by many, while others are held by a few reputable men; and it is reasonable for each group to be not entirely in error, but correct on one point at least, or even on most points.
30 First, our account agrees with those who say happiness is virtue <in general> or some <particular> virtue; for activity expressing virtue is proper to virtue. Presumably, though, it matters quite a bit whether we suppose that the best good consists in possessing or in using, i.e. in a state or in an activity <that actualizes the state>. For while someone may be in a

9. **the origin seems . . . :** A Greek proverb—i.e., 'well begun is more than half done'.

10. **are said:** Lit. 'we say'; but Aristotle must be reporting it as a widely held belief.

11. **involving . . . addition:** Lit. 'with pleasure or not without pleasure'. Aristotle seems to be distinguishing (a) life consisting of activities that are sources of pleasure in themselves, and (b) life consisting in activities that are not in themselves sources of pleasure, plus added sources of pleasure. The same distinction is assumed at 1099a15.

state that achieves no good, if, e.g., he is asleep or inactive in some other *1099a*
way, this cannot be true of the activity; for it will necessarily do actions
and do well in them. And just as Olympic prizes are not for the finest and
strongest, but for contestants, since it is only these who win; so also in life *5*
<only> the fine and good people who act correctly win the prize.

Moreover, the life of these <active> people is also pleasant in itself. For
being pleased is a condition of the soul, <hence included in the activity of
the soul>. Further, each type of person finds pleasure in whatever he is
called a lover of, so that a horse, e.g. pleases the horse-lover, a spectacle the
lover of spectacles, and similarly what is just pleases the lover of justice, *10*
and in general what expresses virtue pleases the lover of virtue. Hence
the things that please most people conflict, because they are not pleasant
by nature, whereas the things that please lovers of what is fine are
things pleasant by nature; and actions expressing virtue are pleasant in this
way; and so they both please lovers of what is fine and are pleasant in *15*
themselves.

Hence their life does not need pleasure to be added <to virtuous activity> as some sort of ornament; rather, it has its pleasure within itself.
For besides the reasons already given, someone who does not enjoy fine
actions is not good; for no one would call him just, e.g., if he did not enjoy
doing just actions, or generous if he did not enjoy generous actions, and *20*
similarly for the other virtues. If this is so, then actions expressing the
virtues are pleasant in themselves.

Moreover, these actions are good and fine as well as pleasant; indeed,
they are good, fine and pleasant more than anything else, since on this
question the excellent person has good judgement, and his judgement
agrees with our conclusions.

Happiness, then, is best, finest and most pleasant, and these three fea-
tures are not distinguished in the way suggested by the Delian inscription: *25*
'What is most just is finest; being healthy is most beneficial; but it is most
pleasant to win our heart's desire.' For all three features are found in the
best activities, and happiness we say is these activities, or <rather> one of *30*
them, the best one.

Nonetheless, happiness evidently also needs external goods to be added <to the activity>, as we said, since we cannot, or cannot easily, do fine
actions if we lack the resources.

For, first of all, in many actions we use friends, wealth and political *1099b*
power just as we use instruments. Further, deprivation of certain <externals>—e.g. good birth, good children, beauty—mars our blessedness; for
we do not altogether have the character of happiness if we look utterly
repulsive or are ill-born, solitary or childless, and have it even less, presumably, if our children or friends are totally bad, or were good but have died. *5*

And so, as we have said, happiness would seem to need this sort of

prosperity added also; that is why some people identify happiness with good fortune, while others <reacting from one extreme to the other> identify it with virtue.

9

This <question about the role of fortune> raises a puzzle: Is happiness acquired by learning, or habituation, or by some other form of cultivation? Or is it the result of some divine fate, or even of fortune?

First, then, if the gods give any gift at all to human beings, it is reasonable for them to give happiness also; indeed, it is reasonable to give happiness more than any other human <good>, insofar as it is the best of human <goods>. Presumably, however, this question is more suitable for a different inquiry.

But even if it is not sent by the gods, but instead results from virtue and some sort of learning or cultivation, happiness appears to be one of the most divine things, since the prize and goal of virtue appears to be the best good, something divine and blessed.

Moreover <if happiness comes in this way> it will be widely shared; for anyone who is not deformed <in his capacity> for virtue will be able to achieve happiness through some sort of learning and attention.

And since it is better to be happy in this way than because of fortune, it is reasonable for this to be the way <we become> happy. For whatever is natural is naturally in the finest state possible, and so are the products of crafts and of every other cause, especially the best cause; and it would be seriously inappropriate to entrust what is greatest and finest to fortune.

The answer to our question is also evident from our account <of happiness>. For we have said it is a certain sort of activity of the soul expressing virtue, <and hence not a product of fortune>; and some of the other goods are necessary conditions <of happiness>, others are naturally useful and cooperative as instruments <but are not parts of it>.

Further, this conclusion agrees with our opening remarks. For we took the goal of political science to be the best good; and most of its attention is devoted to the character of the citizens, to make them good people who do fine actions, <which is reasonable if happiness depends on virtue, not on fortune>.

It is not surprising, then, that we regard neither ox nor horse nor any other kind of animal as happy, since none of them can share in this sort of activity. And for the same reason a child is not happy either, since his age prevents him from doing these sorts of actions; and if he is called happy, he is being congratulated because of anticipated blessedness, since, as we have said, happiness requires both complete virtue and a complete life.

<Happiness needs a complete life.> For life includes many reversals of

fortune, good and bad, and the most prosperous person may fall into a terrible disaster in old age, as the Trojan stories tell us about Priam; but if someone has suffered these sorts of misfortunes and comes to a miserable end, no one counts him happy.

13

Since happiness is an activity of the soul expressing complete virtue, we must examine virtue; for that will perhaps also be a way to study happiness better.

Moreover, the true politician seems to have spent more effort on virtue than on anything else, since he wants to make the citizens good and law-abiding. We find an example of this in the Spartan and Cretan legislators and in any others with their concerns. Since, then, the examination of virtue is proper for political science, the inquiry clearly suits our original decision[12] <to pursue political science>.

It is clear that the virtue we must examine is human virtue, since we are also seeking the human good and human happiness. And by human virtue we mean virtue of the soul, not of the body, since we also say that happiness is an activity of the soul. If this is so, then it is clear that the politician must acquire some knowledge about the soul, just as someone setting out to heal the eyes must acquire knowledge about the whole body as well. This is all the more true to the extent that political science is better and more honorable than medicine—and even among doctors the cultivated ones devote a lot of effort to acquiring knowledge about the body. Hence the politician as well <as the student of nature> must study the soul.

But he must study it for the purpose <of inquiring into virtue>, as far as suffices for what he seeks; for a more exact treatment would presumably take more effort than his purpose requires. <We> have discussed the soul sufficiently <for our purposes> in <our> popular works as well[13] <as our less popular>, and we should use this discussion.

We have said, e.g., that one <part> of the soul is nonrational, while one has reason. Are these distinguished as parts of a body and everything divisible into parts are? Or are they two only in account, and inseparable by nature, as the convex and the concave are in a surface? It does not matter for present purposes.

Consider the nonrational <part>. One <part> of it, i.e. the cause of nutrition and growth, is seemingly plant-like and shared <with other living things>: for we can ascribe this capacity of the soul to everything that is *1102b*

12. **decision:** The decision made in I.2.

13. **in <our> . . . as well:** Or perhaps 'even in the popular works', on which see note to 1096a3.

nourished, including embryos, and the same one to complete living things, since this is more reasonable than to ascribe another capacity to them.

Hence the virtue of this capacity is apparently shared, not <specifically> human. For this part and capacity more than others seem to be active in sleep, and here the good and the bad person are least distinct, which is why happy people are said to be no better off than miserable people for half their lives.

And this lack of distinction is not surprising, since sleep is inactivity of the soul insofar as it is called excellent or base, unless to some small extent some movements penetrate <to our awareness>, and in this way the decent person comes to have better images <in dreams> than just any random person has. Enough about this, however, and let us leave aside the nutritive part, since by nature it has no share in human virtue.

Another nature in the soul would also seem to be nonrational, though in a way it shares in reason.

<Clearly it is nonrational.> For in the continent and the incontinent person we praise their reason, i.e. the <part> of the soul that has reason, because it exhorts them correctly and towards what is best; but they evidently also have in them some other <part> that is by nature something besides reason, conflicting and struggling with reason.

For just as paralysed parts of a body, when we decide to move them to the right, do the contrary and move off to the left, the same is true of the soul; for incontinent people have impulses in contrary directions. In bodies, admittedly, we see the part go astray, whereas we do not see it in the soul; nonetheless, presumably, we should suppose that the soul also has a <part> besides reason, contrary to and countering reason. The <precise> way it is different does not matter.

However, this <part> as well <as the rational part> appears, as we said, to share in reason. At any rate, in the continent person it obeys reason; and in the temperate and the brave person it presumably listens still better to reason, since there it agrees with reason in everything.

The nonrational <part>, then, as well <as the whole soul> apparently has two parts. For while the plant-like <part> shares in reason not at all, the <part> with appetites and in general desires shares in reason in a way, insofar as it both listens to reason and obeys it.

It listens in the way in which we are said to 'listen to reason'[14] from father or friends, not in the way in which we <'give the reason'> in mathematics.

The nonrational part also <obeys and> is persuaded in some way by *1103a* reason, as is shown by chastening, and by every sort of reproof and exhortation.

If we ought to say, then, that this <part> also has reason, then the

14. **listen to reason:** Alternatively, 'take account'—lit., have *logos* (reason, account)—'of father or friends, not in the way in which we [give an account]. . . .'

<part> that has reason, as well <as the nonrational part> will have two parts, one that has reason to the full extent by having it within itself, and another <that has it> by listening to reason as to a father.

The distinction between virtues also reflects this difference. For some virtues are called virtues of thought, others virtues of character; wisdom, comprehension and intelligence are called virtues of thought, generosity and temperance virtues of character.

For when we speak of someone's character we do not say that he is wise or has good comprehension, but that he is gentle or temperate. <Hence these are the virtues of character.> And yet, we also praise the wise person for his state, and the states that are praiseworthy are the ones we call virtues. <Hence wisdom is also a virtue.>

Book II

1

Virtue, then, is of two sorts, virtue of thought and virtue of character. Virtue of thought arises and grows mostly from teaching, and hence needs experience and time. Virtue of character <i.e. of *ēthos*> results from habit <*ethos*>; hence its name 'ethical', slightly varied from '*ethos*'.

Hence it is also clear that none of the virtues of character arises in us naturally.

For if something is by nature <in one condition>, habituation cannot bring it into another condition. A stone, e.g., by nature moves downwards, and habituation could not make it move upwards, not even if you threw it up ten thousand times to habituate it; nor could habituation make fire move downwards, or bring anything that is by nature in one condition into another condition.

Thus the virtues arise in us neither by nature nor against nature. Rather, we are by nature able to acquire them, and reach our complete perfection through habit.

Further, if something arises in us by nature, we first have the capacity for it, and later display the activity. This is clear in the case of the senses; for we did not acquire them by frequent seeing or hearing, but already had them when we exercised them, and did not get them by exercising them.

Virtues, by contrast, we acquire, just as we acquire crafts, by having previously activated them. For we learn a craft by producing the same product that we must produce when we have learned it, becoming builders, e.g., by building and harpists by playing the harp; so also, then, we become just by doing just actions, temperate by doing temperate actions, brave by doing brave actions.

What goes on in cities is evidence for this also. For the legislator makes the citizens good by habituating them, and this is the wish of every legisla-