

and of the lord of light in this visible world, and the immediate source of reason and truth in the intellectual, and that this is the power upon which he who would act rationally either in public or private life must have his eye fixed. I agree, he said, as far as I am able to understand you.

2 Individual Substance: Aristotle, *Categories**

Aristotle's approach to the nature of reality is more robustly down-to-earth than Plato's. He accepts the need to identify something stable and enduring in a world of constant change; but he rejects the notion of universal Forms or essences in the Platonic sense of items with a reality of their own distinct from particular instances of things. For Aristotle, the ultimate units of being are individual substances – for example a particular man, or a particular horse.

Aristotle arrives at this view by linking the concept of a substance with the grammatical notion of a *subject*. In the sentence 'Bucephalus is strong', Bucephalus (the famous war-horse of Alexander the Great) is the subject, and 'strong' the predicate; we may say that strength is *predicated* of the subject; the quality of strength is to be found in this horse. The subject, Bucephalus, by contrast, exists in its own right: it does not have to exist *in* something else.

In the extract that follows, Aristotle points out that 'a substance, numerically one and the

same, is able to receive contraries. For example, an individual man, one and the same, becomes pale at one time and dark at another.' Of course, not *all* the properties of an individual can change: if a horse sprouted horns and chewed the cud it would cease to be a horse altogether. So in addition to the *accidental* or contingent properties (like being fat, or healthy, or fast or lame) that may change from day to day, or year to year, substances have *essential* characteristics which make them the kinds of thing they are. But these universal essences, for Aristotle, have no independent reality in their own right: they simply exist *in* the particular substances of which they are instances. So while Plato puts universals higher in the order of being (particular horses are but pale copies of the Form of Horse), Aristotle reverses the order: it is individual substances (like a particular horse) that exist independently; equine properties or 'predicates' (for example, being a quadruped, having a mane, being strong, and so on) cannot exist independently, but only *in* a particular subject.

A *substance* – that which is called a substance most strictly, primarily and most of all – is that which is neither said of a subject nor in a subject;¹ for example, the individual man, or the individual horse. The species in which the things primarily called substances are, are called *secondary substances*, as also are the genera of these species. For example, the individual man belongs in a species, man, and animal is a genus of the species; so these – both man and animal – are called secondary substances.

* Aristotle, *Categorias* [*Kategoroi*], c.330 BCE, ch. 5 (2a11–4b19), trans. J. L. Ackrill (Oxford: Clarendon, 1963), pp. 5–12.

¹ 'In a subject': in the sentence 'Socrates is bald', the attribute of baldness is *in* the subject (Socrates). 'Said of a subject': in the sentence 'Socrates is a man', what is said of Socrates is the species to which he belongs. Aristotle is about to argue that the individual subject (e.g. Socrates) is the basic or primary substance. Species and genus (e.g. man, animal) are substances only in a secondary sense, since they would not exist at all if individuals did not exist.

It is clear from what has been said that if something is said of a subject both its name and its definition are necessarily predicated of the subject. For example, man is said of a subject, the individual man, and the name is of course predicated (since you will be predicating man of the individual man), and also the definition of man will be predicated of the individual man (since the individual man is also a man). Thus both the name and the definition will be predicated of the subject. But as for things which are in a subject, in most cases neither the name nor the definition is predicated of the subject. In some cases there is nothing to prevent the name from being predicated of the subject, but it is impossible for the definition to be predicated. For example, white, which is in a subject (the body), is predicated of the subject; for a body is called white. But the definition of white will never be predicated of the body.

All the other things are either said of the primary substances as subjects or in them as subjects. This is clear from an examination of cases. For example, animal is predicated of man and therefore also of the individual man; for were it predicated of none of the individual men it would not be predicated of man at all. Again, colour is in body and therefore also in an individual body; for were it not in some individual body it would not be in body at all. Thus all the other things are either said of the primary substances as subjects or in them as subjects. So if the primary substances did not exist it would be impossible for any of the other things to exist.

Of the secondary substances the species is more a substance than the genus, since it is nearer to the primary substance. For if one is to say of the primary substance what it is, it will be more informative and apt to give the species than the genus. For example, it would be more informative to say of the individual man that he is a man than that he is an animal (since the one is more distinctive of the individual man while the other is more general); and more informative to say of the individual tree that it is a tree than that it is a plant. Further, it is because the primary substances are subjects for all the other things and all the other things are predicated of them or are in them, that they are called substances most of all. But as the primary substances stand to the other things, so the species stands to the genus: the species is a subject for the genus (for the genera are predicated of the species but the species are not predicated reciprocally of the genera). Hence for this reason too the species is more a substance than the genus.

But of the species themselves – those which are not genera – one is no more a substance than another: it is no more apt to say of the individual man that he is a man than to say of the individual horse that it is a horse. And similarly of the primary substances one is no more a substance than another: the individual man is no more a substance than the individual ox.

It is reasonable that, after the primary substances, their species and genera should be the only other things called (secondary) substances. For only they, of things predicated, reveal the primary substance. For if one is to say of the individual man what he is, it will be in place to give the species or the genus (though more informative to give man than animal), but to give any of the other things would be out of place – for example, to say 'white' or 'tall' or anything like that. So it is reasonable that these should be the only other things called substances. Further, it is because the primary substances are subjects for every-



thing else that they are called substances most strictly. But as the primary substances stand to everything else, so the species and genera of the primary substances stand to all the rest: all the rest are predicated of these. For if you will call the individual man grammatical it follows that you will call both a man and an animal grammatical; and similarly in other cases.

It is a characteristic common to every substance not to be in a subject. For a primary substance is neither said of a subject nor in a subject. And as for secondary substances, it is obvious at once that they are not in a subject. For man is said of the individual man as subject but is not in a subject: man is not *in* the individual man. Similarly, animal also is said of the individual man as subject but animal is not *in* the individual man. Further, while there is nothing to prevent the name of what is in a subject from being sometimes predicated of the subject, it is impossible for the definition to be predicated. But the definition of the secondary substances, as well as the name, is predicated of the subject: you will predicate the definition of man of the individual man, and also that of animal. No substance, therefore, is in a subject.

This is not, however, peculiar to substance: the differentia also is not in a subject. For footed and two-footed are said of man as subject but are not in a subject; neither two-footed nor footed is *in* man. Moreover, the definition of the differentia is predicated of that of which the differentia is said. For example, if footed is said of man the definition of footed will also be predicated of man; for man is footed.

We need not be disturbed by any fear that we may be forced to say that the parts of a substance, being in a subject (the whole substance), are not substances. For when we spoke of things *in a subject* we did not mean things belonging in something as *parts*.

It is a characteristic of substances and differentiae that all things called from them are so called synonymously. For all the predicates from them are predicated either of the individuals or of the species. (For from a primary substance there is no predicate, since it is said of no subject; and as for secondary substances, the species is predicated of the individual, the genus both of the species and of the individual. Similarly, differentiae too are predicated both of the species and of the individuals.) And the primary substances admit the definition of the species and of the genera, and the species admits that of the genus; for everything said of what is predicated will be said of the subject also. Similarly, both the species and the individuals admit the definition of the differentiae. But synonymous things were precisely those with both the name in common and the same definition. Hence all the things called from substances and differentiae are so called synonymously.

Every substance seems to signify a certain 'this'. As regards the primary substances, it is indisputably true that each of them signifies a certain 'this'; for the thing revealed is individual and numerically one. But as regards the secondary substances, though it appears from the form of the name – when one speaks of man or animal – that a secondary substance likewise signifies a certain 'this', this is not really true; rather, it signifies a certain qualification, for the subject is not, as the primary substance is, one, but man and animal are said of many things.

However, it does not signify simply a certain qualification, as white does. White signifies nothing but a qualification, whereas the species and the genus mark off

the qualification of substance – they signify substance of a certain qualification. (One draws a wider boundary with the genus than with the species, for in speaking of animal one takes in more than in speaking of man.)

Another characteristic of substances is that there is nothing contrary to them. For what would be contrary to a primary substance? For example, there is nothing contrary to an individual man, nor yet is there anything contrary to man or to animal. This, however, is not peculiar to substance but holds of many other things also, for example, of quantity. For there is nothing contrary to four foot or to ten or to anything of this kind – unless someone were to say that many is contrary to few or large to small; but still there is nothing contrary to any *definite* quantity.

Substance, it seems, does not admit of a more and a less. I do not mean that one substance is not more a substance than another (we have said that it is), but that any given substance is not called more, or less, than which it is. For example, if this substance is a man, it will not be more a man or less a man either than itself or than another man. For one man is not more a man than another, as one pale thing is more pale than another and one beautiful thing more beautiful than another. Again, a thing is called more, or less, such-and-such than itself; for example, the body that is pale is called more pale now than before, and the one that is hot is called more, or less, hot. Substance, however, is not spoken of thus. For a man is not called more a man now than before, nor is anything else that is a substance. Thus substance does not admit of a more and a less.

It seems most distinctive of substance that what is numerically one and the same is able to receive contraries. In no other case could one bring forward anything, numerically one, which is able to receive contraries. For example, a colour which is numerically one and the same will not be black and white, nor will numerically one and the same action be bad and good; and similarly with everything else that is not substance. A substance, however, numerically one and the same, is able to receive contraries. For example, an individual man – one and the same – becomes pale at one time and dark at another, and hot and cold, and bad and good. Nothing like this is to be seen in any other case.

But perhaps someone might object and say that statements and beliefs are like this. For the same statement seems to be both true and false. Suppose, for example, that the statement that somebody is sitting is true; after he has got up this same statement will be false. Similarly with beliefs. Suppose you believe truly that somebody is sitting; after he has got up you will believe falsely if you hold the same belief about him. However, even if we were to grant this, there is still a difference in the *way* contraries are received. For in the case of substances it is by themselves changing that they are able to receive contraries. For what has become cold instead of hot, or dark instead of pale, or good instead of bad, has changed (has altered); similarly in other cases too it is by itself undergoing change that each thing is able to receive contraries. Statements and beliefs, on the other hand, themselves remain completely unchangeable in every way; it is because the *actual thing* changes that the contrary comes to belong to them. For the statement that somebody is sitting remains the same; it is because of a change in the actual thing that it comes to be true at one time and false at another. Similarly with beliefs. Hence at least the *way* in which it is able to receive contraries – through a change in itself – would be distinctive of substance, even if we were to grant that beliefs

and statements are able to receive contraries. However, this is not true. For it is not because they themselves receive anything that statements and beliefs are said to be able to receive contraries, but because of what has happened to something else. For it is because the actual thing exists or does not exist that the statement is said to be true or false, not because it is able itself to receive contraries. No statement or belief is changed at all by anything. So since nothing happens in them, they are not able to receive contraries. A substance, on the other hand, is said to be able to receive contraries, because it itself receives contraries. For it receives sickness and health, and paleness and darkness; and because it itself receives the various things of this kind it is said to be able to receive contraries. It is therefore, distinctive of substance that what is numerically one and the same is able to receive contraries. This brings to an end our discussion of substance.

3 Supreme Being and Created Things: René Descartes, *Principles of Philosophy**

The notion of a substance played a key role in the metaphysical thought of the Middle Ages. As we have seen, Aristotle conceived of a substance as an individual subject enduring through change, and having independent existence. In the thirteenth century, the celebrated philosopher and theologian St Thomas Aquinas, taking his cue from Aristotle, defined a substance as an *ens per se existens* – an 'entity existing through itself' (independently, or in its own right).¹ But if the idea of an independent being is construed in the strongest possible sense, as something whose existence is entirely self-sufficient, then one might conclude that the term 'substance' should strictly speaking be reserved for God alone (since according to standard Christian doctrine, He alone is the eternal source of all being, and the existence of everything else is dependent on Him). And this is precisely the line taken several centuries later by René Descartes, at the start of the following extract from the *Principles of Philosophy* (*Principia Philosophiae*, published in Latin in 1644).

God, according to Descartes, is the sole sub-

stance in the strict sense; created things can count as substances only in a secondary sense. But in his account of created things, Descartes makes a striking departure from the framework for understanding reality which Aristotle had offered. The Cartesian² framework for explaining the physical world offers a radically new 'ontology' – a radically new conception of what there is. As we saw in the previous extract, Aristotle grouped individual substances together as belonging to natural kinds (*species* and *genera*); and among 'scholastic' medieval philosophers (those who followed a broadly Aristotelian approach), a great deal of energy was spent in classifying natural phenomena, and explaining the way things behaved in terms of the essential characteristics of the natural kind to which they were taken to belong. (The traditional classificatory scheme involved four principal elements, earth, water, air and fire, each made up of different combinations of the four qualities, Cold, Wet, Dry and Hot.) Ushering in the scientific revolution of the seventeenth century, Descartes argues that to understand natural phenomena

we need instead to adopt a mathematical approach. What matters for explanation in physics are not differences in 'kind' but a quantitative analysis, expressible in terms of strict mathematical laws. Hence we find, in place of the traditional plurality of individual substances belonging to various natural kinds, just one essential kind of matter: the whole universe is composed of a single 'extended stuff', and all phenomena are to be explained quantitatively, in terms of the size, shape and motion of its particles.

Supreme Being and Created Things: Descartes dependent only on the supreme substance, God, for its existence and the movement of its parts. Finally, to complete the picture, there are, in addition to the creator and the physical world, created minds or souls: individual centres of consciousness, whose existence, Descartes maintains, does not require anything material (for more on this notion of the immaterial mind, compare Part III, extract 3, below). Descartes's ontology thus gives us three categories of substance: first, substance in the strict sense – the independent, self-sufficient creator, God; second, extended substance, or matter; and third 'thinking substance' – the category to which created minds belong.

What is meant by 'substance' – a term which does not apply univocally to God and his creatures.



In the case of those items which we regard as things or modes of things, it is worthwhile examining each of them separately. By *substance* we can understand nothing other than a thing which exists in such a way as to depend on no other thing for its existence. And there is only one substance which can be understood to depend on no other thing whatsoever, namely God. In the case of all other substances, we perceive that they can exist only with the help of God's concurrence. Hence the term 'substance' does not apply *univocally*, as they say in the Schools, to God and to other things; that is, there is no distinctly intelligible meaning of the term which is common to God and his creatures. In the case of created things, some are of such a nature that they cannot exist without other things, while some need only the ordinary concurrence of God in order to exist.¹ We make this distinction by calling the latter 'substances' and the former 'qualities' or 'attributes' of those substances.

The term 'substance' applies univocally to mind and to body.
How a substance itself is known.

But as for corporeal substance and mind (or created thinking substance), these can be understood to fall under this common concept: things that need only the concurrence of God in order to exist. However, we cannot initially become aware of a substance merely through its being an existing thing, since this alone does not of itself have any effect on us. We can, however, easily come to know a substance by one of its attributes, in virtue of the common notion that nothingness possesses no attributes, that is to say, no properties or qualities. Thus, if we perceive the presence of some attribute, we can infer that there must also be present an existing thing or substance to which it may be attributed.

* René Descartes, *Principles of Philosophy* [*Principia Philosophiae*, 1644], Part I, articles 51, 52, 54, 63; Part II, articles 1, 2, 3, 4, 21, 22, 23, 36, 64. Trans. J. Cottingham, R. Stoothoff and D. Murdoch, *The Philosophical Writings of Descartes*, vol. I (Cambridge: Cambridge University Press, 1985), pp. 210–11, 215, 223–5, 232, 240, 247.

¹ Thomas Aquinas, *Sententia super Metaphysicam* [1269–72], IV, 1, 540–3.

² Cartesian: belonging to Descartes (from 'Cartesius', the Latin version of his name).