

DAWES HICKS LECTURE ON PHILOSOPHY

THE PLATONISM OF ARISTOTLE

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Read 3 February 1965

EIGHT years ago, in a memorable Dawes Hicks Lecture to this Academy, Sir David Ross spoke of Aristotle's development as a philosopher. One theory of that development he singled out as having established itself in the fifty years since it appeared. It was pioneered in this country by Thomas Case and in Germany, with great effect, by Werner Jaeger. It depicts Aristotle, in Sir David's words, as 'gradually emerging from Platonism into a system of his own'. Aristotle's philosophical career began in the twenty years that he spent learning and practising his trade in Plato's Academy, and it ended in the headship of his own school. So it is tempting to picture him first as the devoted partisan, then as arguing his way free of that discipleship.

'Platonism' has become a familiar catchword in references to this theory. Case and Jaeger used it, and I have kept it in my title. Probably my argument will be reported as maintaining that we have been looking for Aristotle's Platonism in some wrong directions and proposing other directions to follow. But a warning is called for at the start. The catchword 'Platonism' will carry no independent weight in the argument. It is too often taken on trust, and too riddled with ambiguity to be trusted. Lest this seem to you either extravagant or truistic let me show its importance for the matter in hand.

Before you and I joined in a systematic search for Platonism in Aristotle—and this is a project far beyond the scope of one lecture—we should, if we knew our business, try to reach some understanding on Plato's own philosophical progress and achievements as well as on what Aristotle took those achievements to be. Then we should have to settle, at least *ambulando*, what kinds of agreement or sympathy with Plato were relevant—whether we were looking for affinities in large programmes as well as in special problems, for instance, in arguments and methods as well as in conclusions. Case and Jaeger both endeavoured to explain what they understood by 'Platonism'. But

curiously little attention seems to have been paid to their answers to the questions I have just sketched. What Jaeger means by 'Platonism' differs at important points from what Case means, and this fact has not been advertised by those who hail them as co-founders of one theory. And what Jaeger means by the word commits him to giving a very odd answer to our questions: it depends upon a theory of Aristotle's procedure which is both radical to his interpretation and, I think, mistaken. Clearing up the mistake will be a first step towards some positive conclusions. That it has excited so little comment seems largely due to the muffling effect of the blanket-word 'Platonism'.

Aristotle's debts

Aristotle remained a member of Plato's Academy for nearly twenty years. He joined it as a student when he came to Athens about the time of his seventeenth birthday, and when Plato died in the spring of 347 he left the city. Thereafter, according to Jaeger, he gave up his practice of publishing works in which he wrote simply as the philosophical partisan of Plato. Those twenty years were to be the longest time he spent in Athens, and there can be no doubt of their importance either for Aristotle or for Plato himself. For Plato they seem to have been a time of immense activity, in which political disappointments were far outweighed by philosophical achievements. He wrote, *inter alia*, the *Theaetetus* and the *Parmenides*, the *Sophist* and the *Statesman* and the *Philebus*, dialogues in which he showed a new preoccupation with philosophical method and with what his successors classified as problems of logic. These were the years in which logic was born in the Academy; the dialogues must have partly fomented, partly reflected the impulse towards that subject which seized Speusippus and Aristotle and their contemporaries, and sent them seeking criteria for synonymy and homonymy and settling the rules of definition and division. So Jaeger was right to say, at the beginning of his study of the subject, that if we are to understand Aristotle's relationship with Plato it is on this period of the Academy and of its founder's career that we must concentrate.

Yet of those later dialogues, and of the whole context of logical discussion in the Academy which Aristotle records in his *Topics*, Jaeger had disappointingly little to say. During these years, he insisted, Aristotle was a faithful spokesman of Plato's theories. The proof was to be found primarily in fragments of the pupil's writings that could be dated to the last five or six years

before Plato died. But the Plato that Jaeger detected behind some of these fragments was the Plato of the *Phaedo* and the *Symposium* and the *Republic*, dialogues which on Jaeger's own view were already classic when Aristotle reached Athens and already under fire in the Academy long before the fragments in question were written. Some of this fire came from Plato himself, in the *Parmenides* and *Sophist* and *Philebus*; some of it can be heard in Aristotle's handbooks of Academic debate, the *Topics* and *De Sophisticis Elenchis*. Yet in the *Eudemus*, a dialogue which Aristotle wrote after the death of a friend in 354 B.C., Jaeger discovered the Theory of Forms and the view of personal immortality which had been propounded in the *Phaedo*; and he himself held that neither of these survived without change or challenge in Plato's later writings.

Still worse, Aristotle wrote a dialogue, the *Sophist*, which Jaeger dated to the time of his dependence on Plato and (in default of any direct evidence) held to have been just as faithful in conforming to Plato's dialogue of the same name as the *Eudemus* was faithful to the *Phaedo*. Yet Plato's *Sophist* contains a powerful attack on the metaphysics of the *Phaedo*.

So this feature of the 'Platonism' that Jaeger discerned in Aristotle's lost works certainly called for comment, namely the hospitable impartiality of his metaphysical borrowings. The problem need not exercise those unitarians who suppose that Plato never changed his mind or conceded an objection. Case may have been one of these, so far as Plato's published writings are concerned, though he held that during Aristotle's membership of the Academy Plato turned to other theories which are not represented in the dialogues. But Jaeger, like most later scholars, was no unitarian. He represented his account of Aristotle's development as an overdue attempt to do for Plato's pupil what had already, and successfully, been done for Plato. So the supposed jackdaw borrowings cried for some explanation.

The explanation that Jaeger found was striking. He divided Aristotle's philosophical theories from his studies in logic and philosophical method, and claimed that in the Academy the second proceeded quite independently of the first. He appealed to fragments of the *Eudemus* to show that Aristotle worked out much of his logic, and in particular his account of substance and the categories, without letting himself recognize that it implied the rejection of important parts of Plato's metaphysics as that had been developed in, for instance, the *Phaedo*. Later, after Plato's death, he was to press this implication at every turn. But

so long as he was under Plato's spell he was content to take his conclusions from his master's writings and to draw on his own logic merely to provide these with new and sharper arguments.

So the answer to those questions we raised about 'Platonism' is clear and surprising. 'Platonism' becomes a matter not of arguments but of theorems, not of philosophical method but of doctrinal conviction. Aristotle 'was already a master in the realms of method and logical technique at a time when he was still completely dependent on Plato in metaphysics'; and Jaeger concludes that 'this dependence was obviously rooted in the depths of Aristotle's unreasoned religious and personal feelings'.

If this were true it would explain more than Aristotle's supposed readiness at this time to draw doctrine from any part of Plato's work. It would certainly explain that; for 'unreasoned religious and personal feelings' can accommodate a good deal of inconsistency, so long as they are not made answerable to 'method and logical technique'. But it would also explain the relative neglect of Aristotle's logic in Jaeger's impressive sketch of his philosophical progress. Thomas Case could appeal to Plato's analysis of true and false statements in the *Sophist* in order to explain the 'Platonism' of some of Aristotle's early moves in logic. But here his difference from Jaeger is fundamental. For Jaeger the Platonism is not to be sought in the logic.

At the same time Jaeger's explanation put a premium on a certain method of interpretation, a method to which Jaeger himself allowed little force when he turned to Aristotle's extant works. If doctrines are to be removed from their parent arguments and taken for independent agents, they need other means of identification. The readiest method then of picking them out in other philosophical contexts is by the occurrence of particular idioms and turns of phrase which accompanied their appearance in the original, canonical, context. This popular device is exploded by Aristotle's own writings. There is a set of idioms in which he is accustomed to portray Plato's theories, and when he does so he is liable to denounce the idioms as vacuous or misleading. They include the expressions 'idea', 'paradigm', 'participation', 'the one beside the many'. But elsewhere in his work they turn up, clean and ready for use, where the context shows that they carry no reference to the rejected theories.¹

This preamble may serve to show that the word 'Platonism'

¹ 'Idea', Bonitz, *Index. Arist.* 338^b34-48; 'paradigm', *Phys.* 194^b26, *Met.* 1013^a27, *Top.* 151^b20-21; 'participate', Bonitz, *op. cit.* 462^b36-43; 'one beside the many', *An. Post.* 100^a6-9, Alexander in *Met.* 79. 16-17.

is not to be taken without scrutiny as a key on the interpreter's ring. But it leads to a more substantial point. The divorce that Jaeger thought he had made out between the logical and metaphysical partners in Aristotle's early philosophizing was fictitious. There is no good evidence for it, and strong evidence against it. And the evidence against it is positive support for the different approach that I shall sketch later. Let us start at the negative pole of this argument.

Categories and Forms in the Eudemus

The topic of Aristotle's lost dialogue, the *Eudemus*, was the immortality of the soul. It was not one of those dialogues in which Aristotle is reported to have introduced himself as a speaker, so some scholars have urged that we cannot be sure whether a given view derived from the work would have been endorsed by its author. But the argument with which we are concerned does not call for this scepticism. It can safely be credited to Aristotle, not because it reinforces an argument in Plato's *Phaedo* but because in his later work *De Anima* Aristotle is still attacking the same theory against which our argument is levelled.

The theory under attack is that the soul, the principle of life, is nothing but a 'harmony', that is to say a proper co-ordination of elements in the body. When the co-ordination breaks down the life and therefore the soul is at an end. In the *Eudemus* Aristotle is said to have countered this by saying: 'Harmony has a contrary, disharmony. But soul has no contrary. So the soul is not a harmony.'¹ Another authority, earlier but not therefore better, fills out the argument. 'Soul has no contrary, because it is a substance.'² This expansion is one of the pivots on which Jaeger's interpretation turns. He recognizes that it is almost certainly a gratuity from the commentator, Olympiodorus, who puts similar stuffing into other Aristotelian and Platonic arguments in the same context. But in this case Jaeger thinks that the expansion merely brings out an implication that was present though tacit in the original. For if Aristotle said that soul has no contrary he must have had in mind the proposition which appears in the *Categories*, that substance has no contrary. White has a contrary, black; in Aristotle's account of the categories this is enough to prove that white and black are not substances. They are qualities, or species of quality. Man is a species of

¹ Fr. 7 Ross (Philoponus in *de an.* 144.22-25).

² Fr. 7 Ross (Olympiodorus in *Phaed.* 173.20-23).

substance, and there is no logical contrary to man. So, if Aristotle's argument in the *Eudemus* presupposes that the soul is a substance, it presupposes the analysis of substances *vis-à-vis* other categories that is proprietary to Aristotle's logic.

But now for the other arm of Jaeger's interpretation. In the *Phaedo*, and again in the fifth book of the *Republic*, Plato had proposed his own candidates for the title of *substance* or *ousia*, namely the Forms. In the *Phaedo* he gives as examples of such Forms the Equal, the Beautiful, the Good, the Just, the Greater, the Less. All of these have contraries, and in the *Republic* he expressly argues to the unity of a Form from its having a contrary, and seems to say that the same argument holds good of all Forms.¹ So these Forms cannot satisfy Aristotle's definition of a substance. Nor does Aristotle think that Plato is using the word 'substance' simply in a different sense from his own: he consistently reproves Plato for putting up candidates for the status of substance which fail to meet the basic requirements for that grade. So it is unsettling to find Jaeger arguing, as the other limb of his account of the *Eudemus*, that in that dialogue Aristotle accepted the Theory of Forms as it had been formulated in the *Phaedo*. It is by combining these two theses that he is able to conclude that at this time Aristotle was wholly dependent on Plato for his metaphysics but quite independent of him in his logic, namely in his theory of categories. He does not seek to palliate, nor even expressly recognize, the paradox that in Aristotle's view this would commit him to accepting a class of substances which is expressly debarred by the logic he deploys. For my part I find this degree of philosophical *akrasia* incredible.

Fortunately, we need not believe it. Neither arm of Jaeger's interpretation holds firm. That the doctrine of the *Categories* had been worked out during Aristotle's years in the Academy seems to me certain, and I shall try to show how it came about. But given that doctrine, there is no inference from the statement that the soul has no contrary to the presupposition that the soul is a substance in Aristotle's sense. For the *Categories* lays it down that the lack of a contrary is characteristic not only of substances but of the members of various other categories: all quantities, some qualities, some relatives. The argument works very well as it stands: it operates by a simple appeal to a distinction in current usage, and this is wholly appropriate to the form of dialogue that Aristotle is writing: possibly a piece of consolation-literature, certainly not a systematic treatise.

¹ *Phaedo* 75 c, *Rep.* 475 e-6 a.

It remains a question whether, and if so in what sense, the soul was argued to be a substance in the *Eudemus*. Evidently Aristotle wrote the work with the *Phaedo* in mind: part of the discussion was concerned with the possibility of the soul's existence before and after its incarceration in the body, a possibility for which his mature psychology leaves no room. On the other hand, part of the discussion is said by Simplicius to have depicted the soul as a 'form' (εἶδος τι), a use of the word which is familiar enough in the mature psychology but makes small sense within the Platonic Theory of Forms.¹ In brief, the evidence is too equivocal to saddle Aristotle himself at this date with a theory that the soul is a separate substance transiently and painfully housed in a body; and even if it were not, it would not commit him, as Jaeger claims in the second arm of his interpretation, to postulating Plato's transcendent Forms for the disembodied soul to contemplate. Jaeger himself allows that the lost dialogue 'On Philosophy' seems to have given a sympathetic hearing to the first theory but rejected the second, and it would be natural for Aristotle to hold them apart: the immortality of the soul was a matter of tradition, the Theory of Forms a philosopher's invention. When Aristotle discusses the views of 'the many and the wise', it is the second party that gets the shorter shrift.

What evidence then is there that the Forms of the *Phaedo* still haunt the *Eudemus*? There is a mythological description of the soul's passage from Hades, in which the soul is said to forget 'the sights yonder';² but comparison of other texts from the same source shows that these 'sights' were probably not the desiderated Forms but merely Styx and Lethe and the conventional paraphernalia of the underworld. What part this and other myths played in the dialogue we cannot tell, but plainly they are not to be confused with metaphysical argument. Nor again can Aristotle's beliefs be deduced from a report discovered in the Arabian philosopher al-Kindi, to the effect that Aristotle discussed an anecdote in which the soul of a Greek king departed to contemplate 'souls, forms and angels'.³ The myth of Plato's *Phaedrus* must stand behind the anecdote, but what use Aristotle made of the myth is not on record.

I shall not pursue this hunt for the Platonic Forms into the fragments of Aristotle's *Protrepticus*, where Jaeger thought to find

¹ Fr. 8 Ross (Simplicius in *de an.* 221.28-30); cf. Arist. *Met.* 1077^a32-33 and Cherniss, *Aristotle's Criticism of Plato and the Academy*, i, pp. 506-12.

² Fr. 5 Ross (Procl. in *Remp.* ii. 349.13-26), fr. 4 in context (Procl. in *Tim.* 323.16-4.4).

³ Fr. 11 Ross (cf. *Select Fragments*, tr. Ross, p. 23).

them. The fragments have been well beaten in recent years, and the quarry was not there. What evidence remains? Aristotle set up to teach rhetoric in the Academy in rivalry to Isocrates. Worse, he seems to have tried to capture some of Isocrates' own field of political patronage in Cyprus. Henceforth he was a fair target for Isocrates' school. An historian of the fourth century A.D. records that one of Isocrates' pupils wrote against Aristotle and remarks, with astonishment, that Aristotle was attacked as representative of Plato's best-known theories and in particular of the Theory of Forms. But the more we learn of the conventions of ancient rhetoric the less weight there seems to be in this evidence. It is matched by the polemic of another contemporary, Euboulides, in which Aristotle was accused of destroying his master's writings and being absent at his master's death;¹ these charges too seem to have been first levelled at Plato and then ritually transferred to his pupil, much as in comedy and public and forensic oratory the misdemeanours of the parent or patron were visited on the dependent.² Such a polemic is not even evidence that the polemist did not know Aristotle's own views, though in itself this is likely enough.

Still it may be felt that philosophical piety would be the natural posture for Plato's pupils and associates, at least during the great man's lifetime. We know that it was not: the best of the others, Eudoxus and Speusippus, challenged and tried to reform the Theory of Ideas. Nor would simple acquiescence be encouraged by those later dialogues in which Plato subjected his own earlier metaphysics to an unsentimental appraisal. The debates charted in Aristotle's *Topics* are enough to prove that his criticisms of Plato would not estrange him from the rest of that argumentative school. More positively, it can be shown that Aristotle's own account of substance and the categories, so far from being the autonomous growth required by Jaeger, was born and bred in these controversies of the Academy. So far from seeming reconcilable with the Theory of Forms it presupposed and was evolved from a celebrated criticism of that theory.

Before turning to this point it may be worth while entering two disclaimers. First, there are of course many signs of Plato's influence to be found in Aristotle's early works, including the fragments of his lost writings, other than the putative signs I have been questioning. To some of these I have called attention elsewhere; others, notably in Aristotle's cosmology, have often

¹ See I. Düring, *Aristotle in the Ancient Biographical Tradition* (1957), p. 374.

² See W. Süß, *Ethos* (1910), pp. 247-54.

been discussed.¹ Nothing in my argument makes against the importance of detecting and exploiting these clues in interpreting Aristotle. I have been concerned only with one, the most celebrated and influential, account of Aristotle's 'Platonism', and with a curious thesis on which that account turns. And I have been questioning this not from the joy of battle but because, as I shall try to show, it obstructs the use of genuine clues to Aristotle's philosophical progress.

Next, in saying that Aristotle's logic was bred of discussion in the Academy, I do not imply that it was a donation from his colleagues. There used to be a myth, promoted by Burnet and Taylor, that the theory of categories was a commonplace of the Academy, derived from scattered hints in Plato's writings. This myth was exposed, not simply by the obvious lack of system in the supposed hints, but by the fact that no other Academic known to us endorsed the theory and that Xenocrates, Plato's self-appointed exegete, denounced it as a pointless elaboration and went back to a simpler distinction derived from Plato's *Sophist*. Nor again do I mean that Aristotle's logic had come to full maturity before Plato's death. The division of the categories, and probably the general theory of the syllogism, had been worked out by then; but Aristotle continued to review and develop these doctrines in his later work. The same is true of his theory of definition and, more generally, his theory of meaning. What is beyond question is that these theories were developed in practice and not as an independent exercise. The theory of definition was modified to keep pace with the work of a biologist who had once held that a definition could be reduced to a single differentia and then found himself, when he set out to define any natural species, faced with a set of competing criteria. The theory of meaning, of synonymy and homonymy, was enlarged to allow a value to philosophical inquiries which had been earlier denounced as trading on an equivocation. At every stage Aristotle's logic had its roots in philosophical argument and scientific procedure: it would be an anachronism to think otherwise. So what arguments lie at the root of his early account of substance and the categories?

Substance and the criticism of the Forms

Aristotle brings a great variety of arguments against the Theory of Forms, and the variety reflects the faces and phases of

¹ Recently by F. Solmsen, *Aristotle's System of the Physical World* (1960); I. Düring, 'Aristotle and the Heritage from Plato' in *Eranos*, lxii (1964).

that theory as well as Aristotle's shifting interest in it. But the objection to which he recurs most often is that which the Academy dubbed 'the Third Man'. It makes an ambiguous appearance in Plato's *Parmenides*, and it was set out schematically in Aristotle's early essay *On Ideas*.¹ It is the argument behind Aristotle's stock complaint that when Plato invented his Forms he made a mistake about predicates: he took any predicate-expression to stand for some individual thing instead of for some sort of thing.² Thereby, Aristotle held, he committed two faults: he failed to explain how we use predicates to classify and describe actual individuals, and he cluttered the scene with other individuals which were fictions.

Here it is important to be clear on Aristotle's use of 'predicate' and 'predication'. If I say 'Socrates is old' or 'Socrates is a man', what I predicate of Socrates is not old age or manhood but simply *old* or *man*—or, in English, *a man*. Its linguistic expression must be an appropriate filling for 'Socrates is . . . (or is a . . . , or is a kind of . . .)'. Greek lacked, what English enjoys, an indefinite article; and Greek philosophers had not come to see the cardinal importance of quotation marks, or of the clumsier devices that served for such marks. But though this sometimes clouds the interpretation of what Aristotle says about predicates it does not blunt the point of his objection to Plato.

The point is this. Plato is accused of misconstruing the logic of such a statement as 'Socrates is a man' by making two incompatible assumptions about it. He thinks (*a*) that what is predicated, in this case *man* (not the expression but what it stands for), is always something different from the subjects of which it is predicated; for if it were identical with its subjects these would become identical with each other. Plato is a man, Socrates is a man: if these statements have the form of ' $a = c, b = c$ ', *a* will be *b* and Plato will be Socrates. But also Plato thinks (*b*) that what is predicated is itself a subject of that same predicate; for it seems undeniable even if truistic that *man is man* or *a man is a man*. We can borrow the indefinite article and recast the point. Plato had said: 'When I call *A* a man and *B* a man, what does this common label "a man" stand for? Not for the individual subject I apply it to, else it would stand indifferently for any such subject; but *A* and *B* cannot both be the single common thing we are after. So

¹ *Parm.* 131 e-2 b (the argument in 132 c-3 a with which later writers from Eudemus onward conflated it is a different objection); *De Ideis*, fr. 4 Ross (Alexander in *Met.* 84.21-85.12).

² e.g. *de soph. el.* 178^b36-9^a10, *Met.* 1038^b34-9^a3.

“a man” stands for some third thing.’ But then, it is objected, *ex hypothesi* this third thing is a man. And thus we have three men where we began with two, and by similar manipulations we can generate a fourth and fifth *ad infinitum*.

The two premisses (a) and (b) set out by Aristotle were recently rediscovered and entitled the Non-identity Assumption and the Self-predication Assumption. I am not now concerned with the fairness of the objection that Aristotle bases on them, only with the moves by which he constructs a theory of predication that is immune to the paradox. There is a familiar and somewhat reach-me-down diagnosis of the Third Man regress, to the effect that it showed the error of construing every predicative statement as relational—of analysing ‘Socrates is a man’ as mentioning two objects and reporting some relation between them. Plato had said, ‘There is Socrates, and there is Man, and we have to determine the connexion between them: participation, resemblance, or whatever.’ No doubt Aristotle has seen something of this when he accuses Plato of taking the predicate-expression to signify a ‘this’ instead of a ‘such-and-such’, an individual instead of a sort or kind. But for two reasons he could not propound this as a final diagnosis. One is that he is scarcely clearer than Plato on the nature of relations. He has no word for ‘relation’ in the modern sense, and his nearest approach to the idea is in fact a survey of incomplete or relative predicates such as *father, slave, bigger*.¹ The second and more important reason is that he came to think his first short reply—that what is predicated of an individual is not another individual—as much of an over-simplification as the theory it was meant to rebut. His own positive account of the matter, and therewith his first move towards a new theory of predication and the categories, came when he considered which of the two premisses of the regress must be given up, and characteristically refused to give one general answer. For the question assumes that one account will hold good of all predicates, and Aristotle tried to show that this was false.

He countered it by drawing a sharp contrast between two sorts of predicate. One sort is represented by ‘man’, the other by ‘white’: these remained his favourite illustrations. ‘Man’, he points out, is used in the same sense whether we use it to describe Socrates or to speak of the kind or species under which Socrates falls. For suppose we ask what man is: the answer to this general question (say, ‘a featherless biped’) will be equally applicable to

¹ As in *Cat.* vii, *Met.* Δ xv.

the particular man Socrates. But with 'white' it is different. To say that Socrates is white is to say that he is coloured in a certain way; but if we go on to ask what white is, we shall have to say, not that white is coloured in a certain way, but that white is a certain colour. In the *Categories* Aristotle puts this contrast by saying that when we use 'white' to describe someone or something we cannot predicate of our subject the *definition* of white; we can predicate only the word 'white'. But when we call someone 'a man' we can go on to predicate of our subject the definition of man.¹ Elsewhere he puts it by saying that a man cannot be *what white is*.²

With the Third Man in view the moral of this is obvious. There is one sort of predication that does not seem to imply the Self-predication Assumption: white is not white in the sense in which Socrates is white. But there is another sort, represented by the predication of *man*, which for convenience I shall call 'strong predication'; and this sort does seem to imply this Assumption.

If this is so we can expect Aristotle to tolerate the Non-identity Assumption in the first case but to repudiate it, on pain of a regress, in the second. And this he does: not indeed in the early *Categories*, which resorts to an older way of disarming strong predication, but in other works which build on the *Categories*. The first sort of predication, he says, is one in which the subject is something *different from* the attributes ascribed to it (ἄλλο κατ' ἄλλου λεγόμενον, ἕτερόν τι ὄν λευκόν ἔστιν, κτλ). But the second is one in which there is no such difference: *man* is just what Socrates is. 'Man' and 'white' remain his stock examples.³

The *Categories* is at an early and interesting stage of these ponderings on the Third Man. It has seized the difference between the two sorts of predicate, but it has not yet swallowed all the implications. It is still at the stage of disarming strong predication by the old plea that 'man' does not stand for any individual thing. So it can still speak of such a predicate-expression as standing for something different from its subject.⁴ And thereby it avoids the embarrassments into which Aristotle is later due to fall when he decides to reject the Non-identity Assumption outright in such predications. Some of the perplexities of *Metaphysics Z* stem from this rejection; for it leads him to argue that, if we take any primary subject of discourse (καθ' αὐτὸ λεγόμενον) and say just what it is, we must be producing a statement of

¹ 2^a19-34.

² e.g. *An. Post.* 83^a28-30, *Met.* 1007^a32-3.

³ *An. Post.* 83^a24-32, *Met.* 1030^a3-5, 11.

⁴ 3^b10-19, 1^b10.

identity, an equation which defines the subject. And this in turn helps to persuade him that the primary subjects of discourse cannot be individuals such as Socrates, who cannot be defined, but species such as man.¹ In the *Categories*, on the other hand, the primary subjects are still the individual horse or man or tree. Aristotle seems at this early stage to be much more hostile than he later becomes to Plato's treatment of the species as a basic and independent subject of discourse. So it becomes tempting to think of this element in *Metaphysics Z* as a return to, or a renewal of sympathy with, Plato. Perhaps it is, but it is the outcome of pressing a powerful objection to Plato's theories. It is a philosophical position, hard-won and (as Aristotle insists) hard-beset. If this is Platonism there is nothing of pious discipleship in it.

To return to our division of predicates. We have already enough evidence to prove that Aristotle's criticism of Plato led him to draw some distinctions in his account of predication. It is not yet enough to prove that that criticism lay at the root of his theory of predication and the categories. If Aristotle had left his contrast here it would have remained both parochial and perplexing. Its importance came from his use of it to make a far more radical distinction. Namely, it enabled him to divide all the predicates of any individual into two groups: those which hold good essentially or *per se* of their subject, as *man* does of Socrates; and those which merely happen to be true of their subject, as *white* does of Socrates. What Socrates happens to be is what he could also cease to be without ceasing to exist: after such descriptions of the subject it makes sense, even if it is false, to add 'but only sometimes'.² But it would be absurd to say that Socrates merely happened to be a man. If Socrates were still in existence it would be the same man in existence, whatever had happened to his colour or shape. So *man* is the kind of predicate that shows what the individual is, whereas to call Socrates 'white' is (as Aristotle can finally put it, after reflecting on the Third Man) to introduce something different from the subject, a colour that happens to belong to or be found in Socrates.³

Now notice one consequence of drawing the contrast in this way. We have given pride of place to the *noun* 'white' over the

¹ That this is one thesis that Aristotle takes seriously in *Metaphysics Z* needs no arguing: it is already afoot when 1030^a6-14 is read with Z 6. How much of it survives the argument of the later chapters is another matter.

² *Top.* 102^b4-26, cf. *An. Post.* I. xxii, *Met.* Δ xxx and E ii.

³ As in the stock descriptions of accidental predication, ἄλλο κατ' ἄλλου λέγεται, ἕτερόν τι ὄν τοιόνδε ἔστι, κτλ.

adjective, and this primacy of the noun was engineered by stressing the question *what white is*. The same result follows when the noun and the adjective differ in verbal form: it is 'brave' that is derived by change of inflection from 'bravery' and not vice versa, according to Aristotle in the *Categories*,¹ for to say 'X is brave' is to invite the question what bravery is; and thus again the situation comes to be represented as the presence of bravery in X. But with 'man', Aristotle says, it is different. Yet why not perform the reduction here too? Granted, as Aristotle points out, we cannot say 'There is man (or a man) in Socrates' as we can say 'There is bravery in Socrates'. But—shelving other objections to this curious test of status—why not coin one more abstract noun, say 'humanness' (since 'humanity' and 'manhood' have been pre-empted for other jobs), and let this replace 'man' in the first sentence? Why not 'There is humanness in Socrates'? And then, for all this criterion shows, being a man will be just as much something that merely happens to be true of Socrates as being brave or white. All alike will be attributes present in a Socrates who remains *ex hypothesi* different from them all.

It is not hard to piece together Aristotle's answer. It is no accident that there are predicates like *man* which form no abstract noun in current use. Not all predicate-expressions can be analysed as introducing attributes which are merely present in some individual; for there must be an identifiable individual to possess or contain them, i.e. a subject identifiable on different occasions as the same *so-and-so*, as Socrates is identifiable as the same *man*. To say baldly that something is 'the same' is, in Aristotle's view, to say something that either has no determinate sense or else requires different interpretation for different sorts of subject. So the distinction holds firm between what the individual is, as a matter of strong predication, and what else may turn up as an attribute in the individual.

Now it is notoriously this distinction that Aristotle takes as the basis of the general theory set out in his *Categories*. Reflection on the Third Man had thrown up two morals. One was that to say 'Socrates is a man' is to mention one individual and not two. But this would remain nebulous until more light was thrown on the idea of an individual. So Aristotle asked, What is it to distinguish a particular X from X-in-general? Can one answer to this be found to cover all values of X, particular virtues or times or places as well as particular men? In the *Categories* he tackled these questions by applying the second moral derived from the

¹ 1^a11-15.

Third Man, the distinction we have just made out between what can be said of the individual as a matter of strong predication and what attributes may turn up in the individual.

By manipulating the first arm of the distinction Aristotle contrives to distinguish individuals from the species and genera under which they fall; in strong predication the predicate-expression never introduces an individual, always a species or genus. And then by using the second arm he is able to cross-divide these partitions so as to mark off substances from non-substances. A substance can never turn up as an attribute in some other subject in the way that, for instance, a colour or a virtue does. Meditation on the Third Man has borne fruit. And the anti-Platonic provenance of the whole account is further certified by the examples that Aristotle gives of substance in the 'strictest, primary sense': mutable things such as a man or a horse, able to house contrary attributes at different times, but never identical with the contraries they house. The substance itself—the mutable man, or horse, or tree—has no contrary. When Jaeger borrowed this proposition from the doctrine of the *Categories* he was drawing upon a logical system that could not have been constructed before Aristotle had rejected the classical Theory of Forms.¹

This is enough to upset our confidence in the 'Platonism' postulated by Jaeger. But in lifting us off a false trail it puts us upon a true one. Aristotle's philosophical relationship to Plato had better be plotted, not by cutting off his studies of logic and method from his philosophical and scientific thinking, but by watching the interplay of the two in the Academy. So let us take Aristotle back again to his seventeenth birthday and ask: what philosophical interests, and what associated methods, could a new student expect to find in the Academy if he joined it in 367? To this the dialogues of Plato's middle period, together with the evidence of Aristotle and his pupils, give a sufficiently clear answer.

The Academy: (i) the autonomy of the sciences

Briefly, the student could expect to find two major and conflicting interests at work. Plato had professed to reconcile them,

¹ Jaeger himself held that the *Categories* in its present form is not an early work by Aristotle, but he took its doctrines to be both early and Aristotelian. His reasons for doubting the authenticity and earliness of the work (or at least its first nine chapters) were weak (*Aristotle*, p. 46, n. 3).

and the nerve of Aristotle's early work is his exposure of the conflict.

In the first place the Academy housed a great deal of activity in exact science which played no part in, for instance, the rival school of Isocrates. Greek mathematics had made huge progress since its beginnings in the sixth century. Arithmetic, impeded by a clumsy notation and bewildered by the discovery of irrationals, was becalmed; but geometry flourished. Already in the three-quarters of a century before the founding of the Academy so many theorems had been (at least notionally) proved that it became a question how to connect them in a family tree—that is, how to axiomatize the science by isolating the fewest independent assumptions from which these and further discoveries could be validly derived. This project held the attention of Plato and the Academy and issued in more than one handbook of mathematical 'elements'. Two generations later Euclid is said to have built his own canonical system of *Elements* on the work done in Plato's circle. Here Aristotle would meet the principal mathematicians of the day, resident or visiting; and there is some thin evidence, often quoted, that the best of them, Eudoxus, was deputizing for Plato when Aristotle arrived.

So when in the first book of the *Posterior Analytics* Aristotle sets out what he takes to be the general logical structure of a science it is naturally to mathematics and especially to geometry that he looks for his model. His picture of a systematic science probably belongs to his Academic years or shortly after, and its debt to mathematics is a commonplace; but the debt is general and not particular. It is in devising and adapting the details that he shows his hand.

Thus it is mathematics that provides him with the expository (or what he often calls 'didactic') form in which the science is to be cast. In nearly all the surviving productions of Greek mathematics traces of the workshop have been systematically removed; proofs are found for theorems which were certainly first reached by other routes. It is mathematics too that shows him the anatomy of such a science: knowledge is demonstrable, save when it is of the sort presupposed by all demonstration, and demonstration calls for an axiomatic system in which theorems are derived by valid forms of argument from principles basic to the science. It may have been mathematics that gave him his division of these principles into hypotheses, definitions, and general rules of inference. But it is when he goes beyond his mathematical brief, setting himself to analyse the logical form of the proofs and the

nature and derivation of their ultimate premisses, that the philosophical interest of his account begins. The theory of syllogistic argument is his own, and he has obvious difficulty in fitting a mathematical proof into this form.¹ His long discussions of definition in the second book of the *Posterior Analytics* are designed partly to show how the mathematical model is to be adapted to the procedures and explanations of natural science.²

Indeed if one considers the influence of the mathematical model on his other writings it is this remaking of the ingredients that seems to matter, far more than the general recipe for a science. The recipe plays small part in his scientific and philosophical inquiries just because it is not a model for inquiry at all but for subsequent exposition of the results of inquiry. Nevertheless there remains one point at which the influence of the favoured science on Aristotle's philosophizing was radically important.

The drive to axiomatize mathematics and its branches had one implication which Aristotle seems to have pressed far harder than his contemporaries: it was a drive for autonomy. The domestic economy of one field of knowledge was to be settled by fixing its frontiers. The premisses of the science were to determine what questions fell within the mathematician's competence and, not less importantly, what questions did not. Thus a cardinal section of *Posterior Analytics* I is given up to the problem what questions can be properly put to the practitioner of such-and-such a science. Other parts of the work, trading on the rule that one science studies one class of objects, denounce arguments which poach outside their own field—which try, for instance, to deduce geometrical conclusions from arithmetical premisses. Even when an axiom is applied in both arithmetic and geometry the formula has a different use in each science: the analogy between them may be recognized, but for Aristotle 'analogy' is compatible with the formula's retaining not even the most generic identity of sense. He allows that sometimes one science may take over and apply the arguments of another; but these are the exceptions. The impulse throughout the first book of the *Posterior Analytics* is towards establishing what he later calls 'exact and self-sufficient sciences'.³

It is the same impulse that leads him to map the field of knowledge into its departments and sub-departments.⁴ Such

¹ *An. Pr.* 48^a29–39. ² Cf., e.g. *An. Post.* 94^b8–95^a9 with *Met.* 996^a21–^b1.

³ *Eth. Nic.* 1112^a34–^b1.

⁴ Even in the well-known fr. 5 a of the *Protrepticus*, or rather in that version

mapwork was not his prerogative in the Academy; Plato among others took a hand in it, as an exercise in generic division. But for Aristotle the rationale was supplied by the hard-won independence of the axiomatic system; and this ran quite counter to Plato's interests and apparently to those of his contemporaries, including Speusippus.¹ When in the *Posterior Analytics* Aristotle presses for 'universality' in the theses of a science he means just that *within the given science* the premisses should have a given form: the subjects should be classes and not individuals, and the predicates should hold true necessarily of all and only the members of the subject class.² Plato had tried to engage his colleagues in a very different search for universality. The second strand that we have to trace in Aristotle's early philosophizing is his rejection of this attempt.

The Academy: (ii) dialectic

Under Plato mathematics could not be the sole or even the primary concern of the Academy. The *Republic* had argued for a grounding in the exact sciences as a valuable propaedeutic to philosophical inquiries, valuable because philosophy deals chiefly with a world of Forms which is not the physical world, and the numbers and exact figures and angles treated in mathematics are themselves evidently not physical objects but part of the furniture of the non-physical world explored by philosophers. But, though valuable, the mathematical sciences were not in Plato's view the highest form of inquiry; and his prime reason for demoting them is just the drive for independence which so impressed Aristotle. Mathematicians, Plato complains, argue from hypotheses which they do not step back to explain or justify. But, he goes on, there is one form of inquiry which is designed to examine people's assumptions, in mathematics or in morals or wherever: the inquiry or family of inquiries that Plato calls 'dialectic'. This alone is qualified to play governess to all the departmental sciences and to aim, by contrast with them, at a synoptic account of reality. Earlier, in the *Euthydemus*, Plato had claimed that any mathematician in his senses would hand over

of the fragment which E. de Strycker proved to contain the original argument (*Aristotle and Plato in the Mid-fourth Century*, pp. 76-104), what is remarkable is not so much the parallel which Aristotle sets up between an ethical and a physical argument as the care with which he distinguishes the two and assigns them to separate sciences.

¹ Diog. Laert. iv. 2, but the sense of this remains uncertain.

² 73^b25-74^a3.

his discoveries to the dialectician to use; later, in the *Philebus*, 'dialectic' is still the name of a master-science which takes precedence in 'truth and exactness' over mathematical studies. A student as impressed as Aristotle by the mathematicians' drive for autonomy would have to take a stand on these issues. He would hardly be put off by the solemn recommendation in the *Republic* that young men under thirty should not be taught dialectic. Whether or not the Academy offered him any training in the subject there was enough evidence at hand to show what Plato had meant by dialectic, enough written evidence on which to assess his claims. So what, on the evidence, would those claims come to?

Dialectic at its simplest is what Socrates and other speakers do most of the time in Plato's earlier dialogues. Someone asks, What is courage? or, Can we be taught to be good? And various answers are tried out and either brought to grief by Socratic arguments or else, supposing they can be defended from the inquisition, accepted at least provisionally as true. The propositions handled in the argument are the stock material of philosophical discussion, generally matters of common conviction or usage, sometimes the minority views of intellectuals. Aristotle in his own account of dialectic calls them 'things accepted by all men or by the majority or by the wise'.

With time, as Plato becomes more self-conscious over his methods, the devices at the speaker's command become more sophisticated. The objections turn decreasingly on trapping an opponent into self-contradiction, increasingly on serious paradoxes of the sort developed in the *Parmenides*, *Theaetetus*, and *Sophist*. There is a new insistence on the risks of over-simplification. The old Socratic hunt for the unitary definition of some general idea gives way to the attempt, reinforced by the use of generic division, to show that such an idea embraces a family of specifically different and sometimes contrary ideas. In the *Theaetetus* Socrates is still insisting as strongly as he had in the *Meno* on seizing some highly generic concept, such as knowledge or virtue, in a single definition, discounting the various forms that knowledge or virtue can take. Later, in the *Philebus*, he warns his interlocutor against generalizing irresponsibly about pleasure or wisdom before he has meticulously listed and compared the varieties of both. And the same insistence on considering all the possibilities bearing on a topic produces the recommendation in the *Parmenides* to work out the implications of denying as well as of asserting an hypothesis, and to work them

out for other things as well as for the formal subject of the hypothesis. Significantly, Parmenides addresses his recommendation to the young Socrates, who has been dashing into the business of defining Goodness and Beauty and Justice without any adequate training for the job. The faults of over-simplification against which Plato is now producing his safeguards are the faults of Socrates in the earlier dialogues. It is Socrates, or Plato the Socratic, who has generalized hastily from a few favoured instances, Socrates whose trust in the telling counter-example has led him to trust the would-be telling example. Now Plato is taking precautions.

Many of these safeguards were introduced in dialogues which appeared during Aristotle's years in the Academy. All reappear in his own dialectical exercises. The impulse behind them is central in his own thinking: his standard complaint against other philosophers is that they over-simplify. Like Plato, they rely on one model of predication to explain predicates of very different types. Or they fail to realize that the same state of affairs can usually be explained in many different ways (Aristotle reduces them to four). Or they try, like Plato's Socrates, to manufacture a single definition for an expression that can be shown to have many senses: we shall come to an important example of this shortly. So it is tempting to suggest that here, at least, and in another sense than Jaeger's, Aristotle shows himself a Platonist. The methods which come to bulk large in Plato's later dialogues are Aristotle's methods. But in the circumstances we are not entitled to this claim. What may be part of the Platonism of Aristotle may equally be part of the Aristotelianism of Plato.

In any event Aristotle accepts dialectic on these terms and codifies its procedures in the *Topics*, not merely as a device for intellectual training or casual debate but as essential equipment in constructing the sciences. Yet, as he insists, the material of dialectic remains common convictions and common usage, not the self-evident truths which his admiration of mathematics persuades him are characteristic of science. Nor are the methods of dialectic confined to systematic deduction. So how could Plato claim more certainty and exactness for such discussions than for geometry? In outline the reply seemed clear, though the detail varied with time. Dialectic took its authority from its proprietary connexion with the Forms. Its successes were neither arbitrary nor confined to corrigible personal agreement because it was the sole method competent to identify and map those

stable realities of which Plato in his middle dialogues had argued the physical world to house only deceptive reflections.

So when Aristotle came to the Academy there would seem to be two principal strands in Plato's large claims for dialectic. One was the thesis that above the special sciences struggling for autonomy there stands a quite general survey of what there is, a master-science without whose authorization the work of the rest is provisional and insecure. The other was the Theory, or Theories, of Forms. Aristotle came to think that dialectic itself was competent to undermine both these claims. Recent controversy over the question whether he was a 'Platonist' in his earlier years has focused on his handling of the second claim. We have said enough of that. The originality of his position in the Academy will be clearer if we consider his rejection of the first.

Return or Advance?

This is a twice-told tale,¹ and I need not dwell on it before discussing its moral for our inquiry. Aristotle in his earlier works turned two principal arguments against Plato's master-science. One was drawn from his own model of a science. A master-science, he urged, must set out to prove the premisses of the others, that is, to establish by deduction from its own quite general axioms the requisite special truths on which the departmental sciences were based. But no such proof can be given. Nor can any general proof be given of the rules of inference applied in these sciences, such as the law of excluded middle. If Plato had attended to the actual procedures of those disciplines whose independence he deplored he would have been saved from this piece of logical *naïveté*.

The other argument was one more accusation of oversimplifying. There cannot be a single synoptic science of all existing things because there is no such genus as the genus of existing things; and one, though not the only, reason for this is that the verb 'to exist' (strictly, the verb 'to be' in its existential role) is a word with many senses. For a cat to exist is for it to be alive, and alive in more ways than a vegetable. For a patch of ice to exist is for it to be, *inter alia*, hard and cold; when it ceases to be these things it melts and ceases to exist. At the most general

¹ The evidence for what follows is discussed in 'Logic and Metaphysics in some earlier works of Aristotle', in *Aristotle and Plato in the Mid-fourth Century*, pp. 163-90; and 'Aristotle on the snares of ontology', in *New Essays on Plato and Aristotle*, pp. 69-95.

level, for a substance to exist is one thing, for a quality to exist is another, for a quantity it is yet another. Plato had not drawn these distinctions when he engaged in his hunt for the common elements or principles of all existing things, στοιχεῖα τῶν ὄντων. He was the dupe of one multivocal word.

When we turn to *Metaphysics* Γ Ε all is changed. There is, after all, a single and universal science of what exists. If those who looked for the elements of all existing things were on the track of this science, their enterprise was respectable. In the previous book of the *Metaphysics* Aristotle has made a good deal of the first objection to any such general science; now that objection is quietly dropped. The new science is not an axiomatic system; and lest it seem curiously like those non-departmental inquiries which Aristotle has previously dubbed 'dialectical' or 'logical' and branded as unscientific, dialectic is quietly demoted to one department of its old province so as to leave room for the new giant.¹ It is the second objection to the programme that is triumphantly disarmed. The verb 'to exist' is not to be dismissed as a mere source of puns: the simple dichotomy 'univocal or multivocal, synonymous or homonymous' is not sophisticated enough to catch such a word. It is, certainly, a word with a great range of senses, but these senses are systematically connected. They can be sorted into one which is primary and others which are variously derivative from the first. The primary sense is that in which substances, the ultimate subjects of reference in all discourse, exist; and this sense will reappear as a common element in our analyses of the existence of non-substances such as colours or times or sizes. Their existence must be explained as the existence of some substance or substances having them as attributes. Given an understanding of this reduction, an inquiry into substance will be an inquiry into all existence.

So the search for the 'elements of existing things' is reinstated, and it is tempting to say that in his metaphysics Aristotle has come back to Platonism rather than moved from it. But, again, 'Platonism' in what sense? The old questions must be pressed. Certainly Aristotle seems prepared to represent his broad programme as conceived in the tradition of Plato's metaphysics, and certainly the methods by which he begins to carry it out are descended from Plato's dialectic and not from the axiomatic systems which he had taken for a model in the departmental sciences. This is why he can inaugurate it by arguing dialectically for logical axioms which, as he has always insisted, cannot

¹ Cf. 1004^b17-26 with *de soph. el.* 169^b25, al.

be axiomatically proved without begging the question. But what lies at the heart of the new enterprise, including the discussion of the axioms, is Aristotle's analysis of substance. And that analysis is not intelligible except as the product of his criticism of Plato.

It may be argued, on the other hand, that the device by which he turns an inquiry into substance into a survey of all that exists is a conscious debt to Plato or to the partisans of Plato's metaphysics. For the idea that an expression has *focal meaning*, that is to say that it has a primary sense by reference to which its other senses can be explained, seems to have been first clearly set out and exploited in an argument for Plato's Forms. The argument was retailed by Aristotle in his essay *On Ideas*,¹ and that essay is earlier than the earliest criticisms of Plato in our text of the *Metaphysics*. But then it becomes a puzzle why Aristotle took so long to appreciate the value of this device. True, the illustration of it in the original argument was one which he evidently found unacceptable. He had to work out his own examples, and he pitched on the expressions 'medical' and 'healthy' as favourite illustrations. It is medical skill that is called 'medical' in the primary sense; a medical knife is a tool required for the exercise of that skill, medical treatment is the regimen prescribed in the exercise of that skill, and so forth. But dissatisfaction with the original illustration scarcely explains, what the evidence shows to have been the case, that Aristotle was at one time content to work with the simple dichotomy 'univocal or multivocal' and saw little if any virtue in the *tertium quid*. It may then seem plausible to suggest that, as he renewed his sympathy with Plato's metaphysical programme, so he came to see new virtue in a technique that had been evolved in support of that programme.

This explanation will not do. Aristotle's appreciation of focal meaning seems to have increased steadily in his work, as can be seen from an analysis of the strata in his philosophical lexicon, *Metaphysics* Δ. And for this a different explanation suggests itself. There are two very different impulses in his philosophy which do not naturally mesh together. In the use of focal meaning he found himself, with increasing confidence, able to mesh them.

One of these we have already seen. He is occupationally sensitive to expressions with more than one meaning. In the Academy he and Speusippus worked out methods of showing the different senses carried by a single word, methods which come down

¹ *De Ideis* fr. 3 Ross (Alexander in *Met.* 82.11-83.17).

finally to finding a different paraphrase for the word in its different roles. For Aristotle, this is one more expression of the conviction that he shared with J. L. Austin, that 'it is an occupational disease of philosophers to over-simplify—if indeed it is not their occupation'.

But when he turns to the positive business of explaining one of his own key-terms, a different method comes in view. Now he is liable to start from some special, favoured situation of use. Given this starting-point there are likely to be uses of the expression which do not match up to the favoured conditions, and with these uses he deals in various ways. Sometimes he discounts them; sometimes he stretches and weakens his description of the basic situation to cover them; finally he sees a better way of accommodating such deviant forms.

These manoeuvres can be readily illustrated. The first is familiar from his reply to Zeno's paradox of the flying arrow.¹ He cheerfully concedes Zeno's claim that nothing can be said to be moving at an instant, and insists only that it cannot be said to be stationary either. He is so preoccupied with the requirement that any movement must take a certain time to cover a certain distance (and, as a corollary, that any stability must take a certain time but cover no distance) that he discounts any talk of motion, and therefore of velocity, at an instant. He takes no account of the fact that in Greek, as in English, one can ask how fast a man was running when he broke the tape, i.e. at an instant. Yet he could have accommodated this derivative use of expressions for motion and velocity admirably by recourse to focal meaning, and his failure to do this spoilt his reply to Zeno and bedevilled the course of dynamics.

The second manoeuvre can be seen in his analysis of change in the first book of the *Physics*. In the fourth and fifth chapters of that book he argues that any change implies a swing between contrary attributes—either from one to the other, or somewhere on a spectrum between the two. In the sixth and seventh chapters he argues that there must be something to make the swing, that is, something which changes but survives the change. His first illustrations show the typical situation from which he argues: something expanding or contracting, or something that is light turning dark. But he stretches his analysis of this situation to cover an instrument going out of tune, the building of a house from a jumble of bricks, the shaping of a statue from unformed

¹ *Phys.* 239^a23–^b9, 30–33; cf. 'Zeno and the Mathematicians', *Proceedings of the Aristotelian Society*, lviii (1958), pp. 216–22.

bronze; and in the process the two basic ideas, of a *contrary* and of a *subject*, are also inevitably extended. A contrary attribute may now be a nameless state of affairs which is identified only by its lack of the positive marks which could, in some sense of 'could' which Aristotle proposes to explain, have been present. He cites as examples the unsculptedness of bronze, the disorder of bricks that could be a house. The idea of a subject is similarly enlarged to take account of situations which are not at all a matter of contrary states succeeding each other in some separately identifiable subject. Among such situations he mentions the birth of a plant or an animal. The subject, the 'matter', is no longer required to secure its identity by satisfying some categorical description, answering to some such classification as 'a man' or 'a tree'; for the man and the tree are the outcome, and not the residual subjects, of such processes as these. So, with each step away from the original situation, something seems to be dropped or weakened: some condition for the central or typical use of the expressions concerned.

I am not saying that this is a bad procedure: it is a familiar and valuable procedure. Without it we could not speak as we do of the feelings and thinkings of other kinds of animal than men. I cite it to illustrate Aristotle's inclination to start from the favoured case in explaining some important expressions and then move outwards.¹ But there are hazards. In the second book of the *Physics* Aristotle argues that natural processes have as much right to be explained in terms of ends and purposes as the products of any skilled artificer. The reader acquiesces when he points out that we speak of spiders spinning their webs or swallows building their nests 'for a purpose', but he starts to squirm when Aristotle goes on: 'As one proceeds in this way step by step one can see that with plants too things happen for some end—leaves are grown to shade the fruit, roots are sent down to get moisture.' As he proceeds step by step, Aristotle progressively disengages our talk of purposive behaviour from the idea of having skills or being able to think out steps to an end, and it is not clear where the process is to stop. Now we

¹ There is a wealth of other instances. One of the best known is his description of the terms in the syllogism. In all figures of the syllogism he calls the predicate of the conclusion the *larger* or *major*, and the subject of the conclusion the *lesser* or *minor*; but these descriptions, and his explanation of them (*An. Pr.* 26^a21–23), are appropriate only to the first figure. Similarly with his description and explanation of the middle term (25^b35–36). See W. and M. Kneale, *The Development of Logic*, pp. 68–71, G. Patzig, *Die arist. Syllogistik*, ch. iii.

hanker for Aristotle's other approach, the readiness to detect and delimit the different senses of one multivocal expression. It is a relief, and an achievement, when he marries this second technique to his interest in setting out from some central, paradigm situation of use. They are wedded in the concept of focal meaning, and we need not talk of Platonism in order to explain Aristotle's steadily increasing appreciation of this fertile device.

'Platonism', to be sure, is a slippery term. But we might have looked in many other directions for signs of Plato's influence on Aristotle and, given due care, brought home the booty. We took this direction because the others, in physics and psychology for instance, have been and continue to be well explored, whereas in logic and metaphysics the hunt seemed to get off to a false start. So long as the logical and metaphysical strands in Aristotle's thinking were taken to be initially separate, his progress in both became unintelligible.

It seems possible now to trace that progress from sharp and rather schematic criticism of Plato to an avowed sympathy with Plato's general metaphysical programme. But the sympathy is one thing, the concrete problems and procedures which give content to Aristotle's project are another. They are his own, worked out and improved in the course of his own thinking about science and dialectic. There seems no evidence of a stage in that thinking at which he confused admiration with acquiescence.