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GREEK VIEWS OF NATURE AND MIND¹

D. A. REES, M.A., D.Phil.

I

A DISTINGUISHED French scholar has recently set himself to delineate the history of Greek thought, from the time of Plato through the formation of the Hellenistic systems to the days of the empire, distinguishing two opposing tendencies, one toward pantheism and the other towards a philosophy of transcendence.² But that distinction can be traced also in earlier periods than those with which Fr. Festugière is concerned, and it can be applied to theories of the soul equally with theories of God; this theme I hope to illustrate on a tiny scale in the early part of my paper, drawing attention to tendencies on the one hand to treat the soul as part of nature, on the other to place it outside nature. The former of these is the earlier.

In reading the Greek philosophers we are in constant danger of unconsciously modernizing them, of noting similarities, real or apparent, between their problems and ours, and neglecting differences of context and background which do not immediately obtrude themselves. Our present subject calls for this caution in two respects, perhaps, above all others: first, one must lay temporarily aside Cartesian and post-Cartesian distinctions of mind and matter, and all the controversies they have entailed; and secondly, one must not think of the pre-Socratic philosophers as early exponents of empirical science as we know it. Their methods contained little enough of the empirical, and they lived at a time when religion, philosophy, science, mathematics and morals were not sharply divided one from

¹ Lecture delivered to the Royal Institute of Philosophy, at University Hall, 14 Gordon Square, London, W.C.1, on January 30th, 1953.

² A. J. Festugière, *La Révélation Hermès Trismégiste*, esp. vol. II, *Le Dieu cosmique* (Paris, 1949).



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Author(s): D. A. Rees

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another. The background from which they sprang, and which they could only in part leave behind, contained myths of the soul and of the world which stretched back through many generations, and whose already changing features may be discerned in Homer and Hesiod; the late Professor Cornford has shown their relations with the early poets, and also those which bind the Greek cosmogonies with the creation-myths of Babylonia and elsewhere, and behind these with an underlying observance of seasonal rituals.¹

Tylor's description of early man as an animist, though it may raise doubts and queries, can help us here. For that pre-Greek view of the world drew no sharp line between the human and the non-human, between the animate and the inanimate. Everything was alive, was ensouled and was in a way divine. So it was that Thales said that all things were full of gods, and that Aristotle complained that he and his immediate successors introduced into their systems no efficient cause of motion over and above the material cause.² No cause of motion was required: things were alive, and moved of their own nature. The theory was assumed rather than explicitly formulated, and to bestow on it any degree of precision is to incur a measure of falsification: for instance, though it gave rise to later theories of a world-soul, to make it explicitly monistic—or, for the matter of that, explicitly pluralistic—is to attempt to define the indefinite; but at any rate soul was within nature; soul and nature were inseparable. This view coloured the early attempts at a theory of knowledge; when Empedocles, about the middle of the fifth century, came to interpret perception and knowledge, he conceived the mind as one thing and the body observed as another, and, working on the principle already dear to Greek epistemology that like is known by like, said that perception was due to a concordance between the elements of earth, air, fire and water in the subject and those in the object. This theory belongs to physiology, no doubt, but it draws no distinction between the organs of sense and the mind. The "thinghood" of the soul, and its immersion in nature, appear also in Empedocles' theory of the transmigration of souls: the soul is a thing which passes from one embodiment to another, and the community of ensouled beings includes birds, fishes and plants.³

Empedocles' philosophy was a synthesis whose physiognomy has in the last forty years become more clearly discernible;⁴ the transmigration of souls and the doctrine of purification were not a mere

¹ F. M. Cornford, *Principium Sapientiae*, ed. W. K. C. Guthrie (Cambridge, 1952).

² Aristotle, *De An.* I. 411 a 8; *Met.* A 984 a 16–27.

³ *Fr.* B 117 Diels.

⁴ Cf. F. M. Cornford in *Camb. Anc. Hist.*, vol. iv (1926), pp. 563–9; W. Jaeger, *The Theology of the Early Greek Philosophers* (Oxford, 1947), Ch. viii; W. Kranz, *Empedokles* (Zürich, 1949).

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irrelevant and inconsistent excrescence on a scheme of positive science, but were integral to his system, however difficult it may be to weld its parts into a perfectly harmonious whole. For, in the endlessly alternating cycles of the world-process and the long series of the soul's rebirths, the goal to be hoped for was a purification which should at last set the soul free from the wheel of fate and render it divine. In this we find, blended with a conception of our first type, which sees the soul as within nature, one belonging to our second, seeing its proper place in another realm beyond this. How did this new doctrine arise?

In Homer and Hesiod, though there was a life after death, it was for the great majority of men poor and unsubstantial; "I should be willing," says the ghost of Achilles to Odysseus, "to be a serf attached to the land, serving a needy man of but little substance, rather than rule the whole multitude of the dead."¹ But in the subsequent centuries a greater stress came to be laid on the after-life, a stress bound up with urgent convictions of guilt and punishment and of the need for purification. Professor Dodds has spoken of the post-Homeric period in terms of a transition from a shame-culture to a guilt-culture, and suggested as a partial explanation the social upheavals of the time, and the gradual abandonment of earlier and more patriarchal conceptions of the family.² The new trends are found at their strongest in the movements of Orphism and Pythagoreanism; they are found also in the mystical figure of Empedocles, whose poem contained one part on purifications and one on the system of nature.

The primary philosophical expression of this other-worldliness was in Pythagoreanism, which, with its ascetic taboos and its doctrine of transmigration, probably influenced Empedocles. Both philosophies arose in the Greek west, and stand, in locality as well as in doctrine, sharply contrasted with that Ionian tradition which showed itself in different forms first in the Milesian school and then in Anaxagoras, Diogenes of Apollonia and the atomists, to descend from them to Epicurus.³ On the other hand the western tradition receives perhaps its most striking formulation in Parmenides, in whom we find, as in Empedocles, an interesting synthesis of immanence and transcendence. But Parmenides' case is more complicated, since his stress on the indivisible character of that One which for him had the sole title to full reality was not strictly compatible with the existence of separate individual souls. In addition he sharply distinguished sensation and thought, urging that the senses were untrustworthy

¹ *Odyssey*, xi. 489-91.

² E. R. Dodds, *The Greeks and the Irrational* (Berkeley and Los Angeles, 1951), Ch. ii.

³ F. M. Cornford, *The Unwritten Philosophy*, ed. W. K. C. Guthrie (Cambridge, 1950), pp. 119-20.

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and that the One was to be discerned by thought—in effect, by a mystical and intuitive faculty of apprehension.

What was the character of this One? Parmenides has been called both an idealist and a materialist, but both terms are misleading. His One certainly had extension and shape, for he describes it as spherical.¹ But the world in which he lived was not one to which the idea of dead matter was familiar, any more than were the distinctions of idealist and materialist. The most convincing presentation of his philosophy is that which sees in his One a living and ensouled substance, or alternatively an embodied world-soul, ever-living and divine, exempt from birth and decay, discernible by the intellect because it was itself intellect.² But yet, if we apply our distinction of theories which make soul immanent in the universe and those which make it transcendent, Parmenides' does not belong unequivocally to the former type. For he allowed to the objects of perception only a partial reality, and so the living and divine One which I have described as an embodied world-soul was yet somehow beyond the world of the senses.

II

Parmenides' distinction of thought and its objects from sensation and its objects, with the denial of full reality to the latter, was taken up by Plato and made the cornerstone of his philosophy for a great part of his career. He combined it with conceptions derived from that Pythagoreanism which had provided a starting-point for Parmenides' own speculations: a high estimation of mathematics as the ideal form of knowledge and as in some way the key to the ultimate nature of things, and a belief in the immortal and essentially divine character of the soul, which was susceptible of a number of different embodiments but whose true goal was the actualization of its inherently divine status. These conceptions recur in one guise or another through the early Platonic dialogues, taking shape in the *Gorgias*, *Meno* and *Phaedo* and influencing the *Republic*, while they have left their mark also on the mysticism of the *Symposium*; it is perhaps the *Phaedo* that provides the most striking expression of this phase of Plato's thought, uniting a radically transcendent metaphysics with an other-worldly morality. For the *Phaedo* is built upon the equation of three contrasts, those of soul and body, of thought and sensation, and of knowledge and pleasure (identified with bodily pleasure, and not sharply distinguished from the appetites which have this as their goal), and these are held together by a *tour de force* which

¹ *Fr.* B 8, vv. 42–45 Diels.

² F. M. Cornford in *C.A.H.*, vol. iv, pp. 558–62; J. Zafiropulo, *L'École Éléate* (Paris, 1950).

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Plato soon found it necessary to abandon. For these simple dichotomies and equations are open to serious objections; among other points, the sharp distinction between sensory awareness of particulars and apprehension of the Forms left still unelucidated the character of our knowledge, or at least true beliefs, about the physical world.

Among those features which mark off the later Plato from the earlier, one of the most noteworthy is the increasing regard which the physical world enjoys.¹ This is to be seen even in the *Republic*, for all its emphasis upon the Forms and upon the climax of the philosopher's education in dialectic, and for all the insistence of Book X upon the divine and transcendent character of that rational element which is the real soul. For the stages of the philosopher's education lead from arithmetic to plane geometry and solid geometry, and thence to astronomy and harmonics, the non-empirical and non-utilitarian character of these studies being emphasized at every stage.² In essence, the scheme is taken over from the Pythagorean school, and reference to its origin provides one key to a problem which has perennially baffled commentators on Book VII, that of the nature of the astronomy envisaged. A potent source of confusion in the Pythagorean cosmology was its failure to distinguish mathematical entities from their spatial and visible embodiments. Something of the sort happens when in the *Republic* Plato takes over their scheme of education; but it happens at a much higher level of thinking, and our first key serves to unlock the door only when a second is added to it, that of Plato's growing interest in the physical world. For the reader of *Republic* VII is met by a serious puzzle: what are the objects that Plato's astronomer will study? On the one hand the insistence on their purely ideal and non-empirical character inclines us to think of a non-physical abstract heaven and of a completely theoretical study of the kinematics of solid bodies in motion, such as would, moreover, follow on naturally from the plane and solid geometry which lead up to it; and yet on the other hand the passage contains sentences whose only possible interpretation is in terms of a physical astronomy, contrasted as theoretical with the merely empirical observation of the heavens employed by farmers and sailors. Plato was torn in two directions at once, and the issues persist through the later dialogues.

The growing divergence from the *Phaedo* is clearly to be seen if one examines the *Timaeus*, for all its separation of an intelligible realm of being from a visible realm of becoming, its insistence that the cosmology it sketches can in the nature of things have no more than a limited degree of probability,³ and its doctrine of the immor-

¹ A. J. Festugière, *op. cit.*, vol. ii, ch. v.

² *Rep.* VII. 524D-531C.

³ *Ti.* 29C, etc.

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ality of the rational element in the soul. The reasons for the change, which are three in number, are not to be separated from each other: they are Plato's growing interest in the physical world, and especially in the heavenly bodies; the location of the soul within that world, instead of its being in essence outside it, as formerly; and the theory of the soul as the source of all motion, a theory whose supreme exemplification in the *Timaeus* is to be found in the world-soul, with the rational element in which Cornford very tentatively identified Plato's Divine Artificer, the Demiurge.¹ The growing predominance of astronomy in Plato's thought, accompanied by a tendency to thrust the Forms into the background, is strikingly illustrated in the *Laws* and *Epinomis*, whoever be the author of the latter work, while earlier in the *Phaedrus* Plato had already presented his theory of the soul as the source of motion; though that dialogue contains a myth of the soul's descent and a mystical doctrine of its re-ascent, it and the gods alike are located within the visible universe, so that the total result is that the metaphysical structure of the *Phaedo* is directly overset and the soul thrust once again inside nature.²

These cosmological theories were potent in the subsequent decades and centuries. They powerfully influenced Aristotle when, about the time of Plato's death, he wrote the most celebrated of his lost dialogues, that entitled *On Philosophy*, in three books.³ Plato had blended science and religion in one, and the dialogue *On Philosophy*, whose third book expounded a cosmology deeply imbued with a religious spirit, was in its turn a powerful force in the development of the Hellenistic world-outlook. These influences were strongly at work in forming the Stoic picture of the world, with its materialism which was yet pantheistic; in that philosophy God, who was identified with Nature, functioned in all that happened through the operation of what, trying to translate the untranslatable, we may call "seminal reasons." Not till the other-worldliness of the Imperial Age arrived did Neopythagoreanism and Neoplatonism re-introduce a transcendent standpoint.

We may seem to have travelled far from the animism, or rather animatism, with which we began. But in a sense it is not so very far after all, if we contrast both these views of the soul with that positivistic attitude which characterizes the modern Western world; and on the other hand again it must not be forgotten that the Greek immanentists, if they may so be named, have had successors: such mystical speculators of the Renaissance period as Giordano Bruno are among them; so is Spinoza, with his "Deus sive Natura," set in a philosophy strongly reminiscent of Stoicism; and, though Hegel

¹ *Plato's Cosmology* (London, 1937), p. 39.

² *Phdr.* 245C ff., 246E, 248A-E.

³ Cf. W. Jaeger, *Aristotle* (E. T., Oxford, 1934), ch. vi.

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repudiated the name of pantheist, marked tendencies in that direction are general in the post-Kantian idealists, as in the Romantic poets of the period. An Englishman need only think of Wordsworth's lines on Tintern Abbey.

III

With Aristotle we find the irruption of a tendency which is very different, and which springs on one side from his biological interests. But this is not the only aspect of his psychology, nor is it the first to make its appearance. The traces which remain of his lost dialogue, the *Eudemus*, which was probably written in 354-3, display a standpoint closely similar to that of the *Phaedo*:¹ as Plato, in the dialogue which commemorated Socrates' death, sought to prove that the soul was an indestructible substance, Aristotle set out with the same goal in a dialogue written as a memorial to his friend Eudemus, who had recently died. The fragments which remain are scanty, but it is clear that a rigid dualism separated the soul from the body, the former enjoying the capacity to contemplate the supersensible world, so that, along with the similarity in dramatic setting, Aristotle was reverting in doctrine to the type of transcendence employed by Plato in the *Phaedo*. The same is true of the *Protrepticus*, which followed the *Eudemus* at but a short interval.

Aristotle's intellectual evolution was a remarkable process, and a striking contrast with these works is to be found in the *De Philosophia*, the longest and most elaborate of his dialogues. His development had now reached the crisis in which he felt obliged to abandon the theory of Forms. But Plato had also envisaged an immortal intellect whose function was to contemplate his transcendent Forms, and with the disappearance of these a radical transformation would be required in the theory of the intellect. The first result, which differs markedly from that set out in the *De Anima*, is to be found in the fragments of the *De Philosophia*. This was a materialistic work; its physics explained the movements of the heavenly bodies, without recourse to a transcendent mover, by ascribing to them qualities of intelligence and purpose regarded as inherent in the aether of which they were composed; while its psychology held the human intellect to be composed of that same element, which conferred upon it its divine status and guaranteed the affinity of the microcosm with the macrocosm, eternally alive.² This doctrine, which is closely akin to that of the *Epinomis*, differs from that expressed in the *Timaeus*; but all three treat intellect as the source of motion, all thrust the intellect

¹ Jaeger, *Aristotle*, ch. iii.

² Cf. esp. *Frr.* 21, 26, 27 Walzer. Cf. also E. Bignone, *L'Aristotele perduto e La Formazione filosofica di Epicuro* (2 vols., Florence, 1936), vol. i, pp. 227-61.

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within the framework of the visible universe, and all are deeply impregnated with the emotion of a cosmic religion.

It is this characteristic, perhaps, above all others which sets the *De Philosophia* apart from the general temper of Aristotle's later investigations of nature, and particularly from his researches into living beings and into the soul which gave them their character as alive. The origin of his biological interests is not altogether clear, though it is certain that they were already active when, on leaving Athens after Plato's death, he spent some years first at Assos in the Troad and then on the island of Lesbos just off the coast, since many of his biological examples are taken from there; but it is known that his father was a physician at the Macedonian court, and this fact has been noted as suggesting one line of influence. Further, Professor Cornford has forcibly pointed out the importance of the medical tradition in Greece as representing an insistence upon observation and a tenacious empiricism which contrasted with the dogmatic speculations of the natural philosophers.¹

The theory, or rather theories, of the soul which characterize Aristotle's scientific treatises stem from his rejection of the Platonic theory of separate and substantial Forms. As was noted above, that rejection called for a new theory of the soul; its consequences deserve special consideration here, since they constitute a trend strikingly new in Greek thought and much closer to conceptions familiar to-day. The revolution was not accomplished at a single stroke, and the Dutch scholar, Dr. F. Nuyens, has presented a picture of the way Aristotle's scientific psychology developed which, though it requires qualifications, contains a core of solid fact that is most illuminating.²

The development of that psychology involved two stages, in only the second of which were Aristotle's new conceptions of matter and form fully applied. The earlier, which is found in Books II–IV of the work *On the Parts of Animals*, that *On the Motion of Animals* and part of the group of short essays traditionally called the *Parva Naturalia*, locates the soul in the heart, which is regarded as the seat of consciousness. The heart and the soul residing in it are thought of as together governing the movements of the rest of the body and maintaining them in existence, in accordance with a conception different both from those of Aristotle's earlier years and from that of the *De Anima*. Nuyens names this phase "mechanistic instrumentalism,"³ but it is better, perhaps, to avoid a term which

¹ *Principium Sapientiae*, ch. iii.

² F. J. C. J. Nuyens, *Ontwikkelingsmomenten in de Zielkunde van Aristoteles* (Nijmegen-Utrecht, 1939); French translation, *L'Evolution de la Psychologie d'Aristote* (Louvain-Paris, 1948).

³ *Ib.*, pp. 161–3 (French edn.).

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has question-begging implications; to write of "mechanism" is misleading, while "instrumentalism" suggests that the body is the instrument of the soul—a conception found in Aristotle's moral works but, despite Nuyens, not to be identified with this. So some such phrase as "vital force theory" is preferable.

When Aristotle put forward this treatment, he had not yet applied to the soul his mature theory of the relation of form to matter. But in working out the implications of his rejection of Plato's theory of Forms he came to conceive sensible substances as composite of a form and a matter which were each other's correlates, the latter serving as a substratum of potentiality on which the former might supervene to bring the full nature of the thing to realization. Such a process involved for Aristotle four types of cause, formal, final, efficient and material; and whereas in the earlier phase the soul was thought of as the efficient cause of the body's vital activities—if, indeed, these distinctions are applicable at all—it was now conceived as primarily the formal, and not the efficient. Another big change was involved also, for whereas the soul had been located in the heart it was now the form of the body as a whole, and not located in any particular organ. These changes were of the utmost significance. They meant that the soul was no longer regarded as a thing, but as a system of functions which characterized a living being, supervening upon its component parts and strictly inconceivable apart from them. Not only did this represent a break with all previous conceptions, including that of Plato, but a retrogression is to be observed in both the Stoic and the Epicurean schools; the former conceived the soul as a material fiery substance (*pneuma*), while Epicurus, following Leucippus and Democritus, took it to be composed of spherical atoms spread over the body.

But, before we descant upon the brilliance of Aristotle's solution, and hail it as a striking anticipation of the conceptions of contemporary psychology—before even we ask whether it was so close an anticipation as might appear—there is another aspect of his philosophy to be brought into view. Side by side with this theory of the soul Aristotle maintained to the end of his days a theory of the intellect which is hard to reconcile with it and which appears by contrast strikingly Platonic. This is only half-true, for it is not one that Plato could have held, since it presupposes the immersion of the Forms in sensible things, and further it can only have been worked out when the cosmology of the dialogue *On Philosophy* had been abandoned; but nevertheless the third book of the *De Anima* treats the intellect—or at least what Aristotle calls the active intellect—as a wholly immaterial entity, impassible, separate and immortal. How it was connected with the soul (or shall we say "the rest of the soul"?) he nowhere makes clear. The notion is a striking

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example of his conservatism; it was part of the Academic tradition to attribute these properties of separateness and immortality to the intellect, and so Aristotle still maintained that there must be some form of intellect to which these terms were applicable, despite difficulties of co-ordination with the rest of his philosophy which meant that he had to resort to his distinction, artificial, obscure and difficult, of an active intellect from a passive. That active intellect, like Aristotle's God, is an entity utterly immaterial and utterly transcendent of the natural world.

This theory of the intellect did not, however, commend itself to all of Aristotle's followers, among whom we find further tendencies in a naturalistic and anti-metaphysical direction. They are most striking in Strato, an industrious investigator and an original thinker of great interest, who succeeded Theophrastus as head of the Peripatos and died about 270 B.C. In the past he has usually suffered from a mixture of depreciation and neglect, but Professor Farrington has drawn attention to the great interest of his scientific theories,¹ and more recently the Swiss scholar, Professor Wehrli, has published an admirable edition of the fragments.² Unfortunately those available for reconstructing his psychology are sadly defective. It is, however, clear that in the post-Aristotelian Peripatos a crisis arose in the theory of form and matter, which Strato renounced as a principle of explanation. This called for a further reformulation of the theory of the soul; Aristoxenus and Dicaearchus took over from some branch of the Pythagorean school the doctrine that it was a harmony of the bodily elements, while Strato seems to have resolved it into a material substance called the *pneuma* or spirit. But at the same time he maintained the unity of the soul and, in accordance with his thoroughgoing refusal to admit anything transcendent, he declined to separate the intellect from the rest of the soul, located it in the head, denied it immortality and held that animals might in some degree enjoy it as well as human beings. The negative and destructive side of his theory was expressed in a series of forceful criticisms of the *Phaedo*. But one must be careful not to wrest Strato's thought out of its context in Greek theory; his materialistic soul was, in some aspects, not far from that which Aristotle had postulated in the dialogue *On Philosophy*, while the location of the intellect in the head and its occurrence in animals were familiar from the *Timaeus*—to say nothing of the close affinity Strato's views have on the one side to the tradition of Democritus and Epicurus and on the other to that of the Stoics. To us the result seems both strikingly modern and curiously archaic.

¹ *Greek Science*, vol. ii (London, 1949).

² Basle, 1950 (*Die Schule des Aristoteles*, vol. v).

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IV

Despite the interest of Strato, it is probably Aristotle's mature conception of the soul—that of the intellect apart—which it is most profitable to compare with theories of the mind current in contemporary philosophy and psychology. Professor O. L. Zangwill prefaces his *An Introduction to Modern Psychology* (1950) with the following quotation from Henri Piéron: "We are engaged in constructing a science of psychology, dynamic in spirit, which forms an integral part of the biological sciences. This psychology determines the laws of the general activity of organisms, in relation to their environment." One is tempted to think that these words could be applied directly to Aristotle, and then perhaps to wonder how it was that no detailed empirical psychology came to be based on his principles, when one realizes that even here certain qualifications have to be made. For Greek science lacked the modern conception of a scientific law; while if the second sentence is to be applied to Aristotle the words "in their environment" will have also to be slurred, and in the first the phrase "are engaged in constructing" will require modification. Behind the *De Anima* lies a work of brilliant intellectual construction, but no prolonged labour of experiment; there is little in it that would involve detailed empirical investigation, and the same could be said, with rather less justice, of those parts of the *Parva Naturalia* which do not pass over into pure physiology. If we except the theory of the intellect, the *De Anima* primarily, though not exclusively, provides the theoretical basis for Aristotle's biological works.

The soundness of this theoretical foundation was, in Aristotle's eyes, established once for all, since the apprehension of the general principles involved could be achieved by an act of direct insight, merely requiring the presence of sensory data for its stimulation. The process would be one of what Aristotle calls ἐπαγωγή by a term which we translate "induction," in so doing bringing unconsciously into sharp relief the vast gulf between his conception of scientific knowledge and ours. When, in fact, one examines the most striking differences between his conception of psychology and ours, they prove to be parallel to those which divide ancient natural science from modern. They lie in the modern growth of experiment, the application of mathematical techniques, and a prominence given to practical applications which makes any dividing-line between the pure and the applied exceedingly hard to draw. What seem to us deficiencies here stem from inadequacies in Greek thought of a very general and far-reaching nature, and in particular from inadequacies in cosmology and the theory of knowledge. For, while it is true that Greek mathematics could not provide empirical investigation with

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the powerful tools of the differential calculus and its successors, a more important factor is the failure, general though not complete, of Aristotelian science to use such mathematics as was available, except in the realm of astronomy; for it the lower world was inherently imprecise, and to seek for mathematical exactitude in it would be waste of effort. The resulting science was therefore qualitative, not quantitative, and, in accordance with Aristotle's metaphysics, it depended simply on the apprehension of forms embodied in sensible substances, of genera, species and properties, and of connections between them which could be expressed in syllogisms. Such a science would lead to observation, but not to experiment; and the ideal of the contemplative life which it embodied, harmonizing with the Aristotelian—and Platonic—exaltation of theory over practice, would discourage both experiment and practical application.

To show, however, how it was that Aristotle's conception of the soul did not lead to any systematic empirical psychology is not to deny that there is much acute psychological observation in his works. It is interesting, however, to note where it is to be found. It occurs principally in the moral treatises, particularly the *Nicomachean Ethics*, and in such kindred works as the *Rhetoric*. But the observations there are not thought of as constituting a systematic body of knowledge to be sought for its own sake, but simply as data subservient to the needs of ethics, which is for Aristotle not theoretical but practical, and to the immediate needs of the statesman; the basis which he principally employs, following an established Academic tradition, is a division of the soul into a rational element and an irrational for which he disclaims full scientific precision.

But the student may be disposed to modernize Aristotle in yet another way. He may think of the *De Anima*, with its theory of form and matter, as having avoided the dualism of Descartes and his successors and interpreted the soul in terms of behaviour in such a way as to approach the type of outlook characteristic of (let us say) Professor Ryle in *The Concept of Mind* (1949). There is certainly something in the comparison, but it needs to be handled with great care, for the movement of which *The Concept of Mind* is part stems from a concern with observational technique foreign to Aristotle, and from a movement in psychology which has deliberately displaced introspection from the centre of the picture and replaced it with the observation of behaviour. Again, Ryle sets out to solve a problem which was raised by the Cartesian tradition in a climate of thought rapidly shedding its Aristotelian character. Whereas he asks "How far are terms like 'imagination,' 'reasoning,' 'observing' and so on to be interpreted in terms of overt behaviour?" Aristotle is simply unaware of any difficulties. This applies not merely to his treatment of the intellect, but to what he says of imagination and perception

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as well. Reading him now, we find ourselves puzzled by a contrast of mind and matter—or of subject and object—over and above his distinction of matter and form, a contrast which was foreign to his way of thinking. And yet, perhaps, even here we can turn to him with profit, for most readers of Ryle seem to agree that his interpretation leaves out an essential part—leaves out the immediate experience. This is not the place to go into the question; and the difficulties are not easy to express, for it seems clear that psychology does investigate behaviour, and that what we are trying to point to as the root of our dissatisfaction is over and above what psychology studies.¹ Aristotle's treatment of the mind includes this element of conscious experience, but he does not see any difficulties in its inclusion, and so a solution cannot profitably be sought in him; perhaps the character of this immediate experience can be conveyed only indirectly, by a sort of phenomenological description which is highly metaphorical; which is what the existentialists seem to be saying. And we have still much to learn.

¹ This sentence and the next require a good deal of qualification.

*University College of North Wales,
Bangor.*