

III.—THE DISCOURSE ON METHOD (1637-1937).

By L. ROTH.

1.

THE *Discourse on Method*, planned towards the end of the year 1635, composed in 1636, and published in 1637, marks a turning-point in European thought. Written in French, not in Latin, it was addressed not to the scholar but to the man (and woman)¹ of 'good sense', and its appeal to the ordinary reader was enforced by a narrative of high personal interest. Philosophy was no longer in an academic heaven; it had been brought down again to earth. It became the salt of polite conversation, and was honoured not only by men of science but by dignitaries of the Church and ladies of the Court. Yet its gains were more solid than those of a passing fashion. Although slow to be accepted in the official seats of learning, it gradually won its way to dogmatic supremacy, and the 'new' philosophy of Locke (1690) found the philosophy of Descartes as firmly entrenched as the 'new' philosophy of Descartes had found the philosophy of the Schoolmen.

Striking testimony to the nature and extent of the Cartesian victory is to be found, some half-century after the publication of the *Discourse*, in the acute and amusing romance of Father Daniel:² "Your philosophy had at first the advantages and disadvantages of novelty and experienced the vicissitudes of all new ideas. It was received with admiration and upheld with warmth by many individuals; it found patrons and protectors among men of reputation for intelligence, capacity and breeding. But almost all the Societies and all the Universities rejected it and declared themselves in opposition.

"The matter is pretty much in the same case now. Yet for all that, if we judge by the books, whether in philosophy or medicine, which come to us from England, Holland and Germany,

¹ *Corresp.* I, 560 l. 24 [all references to Descartes are by the volumes, pages and lines of the Adam-Tannéry edition].

² *Voyage du Monde de M. Descartes*, ed. 2, Paris, 1702. The first edition was published anonymously in 1689.

Cartesianism has made great progress in all those countries. Courses of philosophy according to the scholastic method have practically ceased to be printed, and almost all the works of that kind which appear in France now are treatises on physics which rest on the principles of the new philosophy. Books on Universals, Metaphysical Degrees, and Rational Being frighten publishers off nowadays. They refuse to touch them any longer, and try and get rid of their old stocks at any price. . . . Although these questions were once so famous, and for nearly two centuries made so many presses groan and kept so many printers busy, they are now no longer heard of except in the schools. Outside of the class-room nobody talks any more of Thomists, Scotists and Nominalists, or, at any rate, nobody makes any distinction between them. They are all put into the same category of 'ancient' as opposed to the new philosophy, the philosophy of Descartes.

"You have also had the good fortune practically to efface all other new philosophers, whether of your own time or after. . . . Just as in Spain they call every heretic of the last century, Lutheran, whatever sect he may belong to, so the name Cartesian is applied indifferently to everyone since your day who tried to introduce any improvements into Physics. . . ." ¹

2.

The point of interest in this estimate, and it must be remembered it comes from an opponent, is its testimony to the kind of standing acquired by Cartesianism in the last decade of the century in which it appeared. It marks an epoch. It is the dividing line in the history of thought. Everything that came before it is old; everything that came after it is new. Modern students emphasise the essential continuity of the Cartesian philosophy with the Scholasticism which preceded it, but this continuity was not so obvious (except as a tactical move of the 'Aristotelians')² to the learned Father of the Company of Jesus who was fighting against it in Scholasticism's name. To him Cartesianism represented, as it has appeared to represent down to our day, something genuinely new.

Yet if one scrutinises, in the light of the available evidence, the actual character of the Cartesian contribution, it is clear that the points of view of the seventeenth-century and the twentieth-century critics are not, in fact, far removed from one another. Modern criticism opened with the remark of Freudenthal that

¹ *Op. cit.*, pp. 255-257.

² *Op. cit.*, pp. 281-282.

the novelty of Cartesianism lay not in its psychology, its theory of knowledge, its ethics or its metaphysics, but in its physics ; and the justly admired labours of M. Gilson have confessedly ¹ only worked out the detail of this all-important theme. Now it is significant that for Father Daniel too the novelty of Cartesianism lay in its physics, not its metaphysics ; and his book is an attack not on the ' cogito ' or the ontological argument, but, principally, on the theory of vortices. We feel now that Cartesianism is much more than a specific theory of the origin and constitution of the physical universe, but it is at least that ; and it is salutary to be reminded that it meant that for Descartes' immediate critics, and indeed for Descartes himself.

3.

The Cartesian revolution lay in the attempt to substitute a physics based on metaphysics ² for a metaphysics based on physics. It may well be that in this, as has been maintained, it was only following the Platonic element in the emergence of the modern mind from Scholasticism, but there is no doubt that it was reversing the main current which went to make up that mighty, and not yet exhausted, stream. Medieval Aristotelianism was true to its source in basing its argument for the existence of God on the theory of motion. God is the First Mover, and motion is of the physical world ; theology therefore is based on physics. Logic and mathematics are a ' propædeutic ', disciplines subsidiary to physics, and physics is the entrance-hall to the palace of theology. The various sciences are thus architectonically one. The study of method is ancillary to the study of the physical world, and the study of the physical world points to the idea of God.

We know from the biographers that Descartes in 1629 was meditating a work on ' divinity ', but we have no specific information about its proposed contents, and it is illegitimate to argue from it an independent interest in theology. On the other hand, we possess positive evidence from his correspondence as to his actual pre-occupations at this early period, and the evidence is borne out amply both from the narrative of the *Discourse* and the fragments which survive from those years. Descartes' primary interest was in physics, the explanation and

¹ *Index Scholastico-Curtésien*, Paris, 1913, Introduction, p. i.

² To demonstrate ' les principes de la Physique par la Métaphysique (ce que j'espère faire quelque jour mais qui ne l'a point esté par cy-devant), ' *Corresp.* II, 141, l. 25 f. (May, 1638).

interpretation of the facts of the world of nature, and his typical study is Optics: the suppressed *Monde*, for example,¹ was primarily a treatise on light. The interest in theology was secondary, indeed it is not fundamentally an interest in theology at all. The general movement of Cartesianism was to the very end from the self to God and from God to the external world, and a striking passage in the *Recherche de la Vérité* (X, 505, l. 9 ff.) emphasises this 'order' as against that of so-called common sense. So far as these early writings are concerned (and we may include within them the *Discourse* itself), God is for Descartes a hypothesis incidental to his account of the physical world, and even the developed *Meditations*, with all its elaborate theological argumentation, leads up to a defence of mathematical physics (Med. 5, last §). This is even more obvious in the case of the latest work of this group, the *Principles of Philosophy*. This is a handbook of Descartes' physics 'for the use of schools and colleges', and the metaphysics takes its place in the summary and introductory Book I.

This specific and conscious tendency of Cartesianism explains the most important literary fact about the *Discourse*. The *Discourse on Method* is only an introduction to a number of treatises on scientific subjects which constitute 'essays in' that method, and the method it deals with is a method of reasoning which is to bring us not to metaphysical but to scientific truth. The *Discourse* is thus not 'philosophy' but an 'introduction to science'; or rather (since the word 'philosophy', for that and the succeeding century, is ambiguous), the 'philosophy' of the *Discourse* and Descartes' other works is what we now call science and in particular the science of nature or (in the wider sense) physics. We are used to think of the *Discourse* with its 'I think, therefore I am', as inaugurating the new departure in metaphysics the typical product of which is the fascinating series of meditations which in our own day has inspired the *Méditations cartésiennes* of Husserl. But Descartes himself was interested in these metaphysical principles only as providing the basis for his physics, and the work he himself regarded as central, the *Principles of Philosophy*, has its analogue not in the *Meditations* of Husserl, but in the *Mechanics* of Mach. For Descartes both the 'cogito'

¹ *Corresp.* I, 561, l. 8; and so the sub-title of the printed text (1664) and *Discourse* 5 (VI, 42, l. 5). "Il continua ensuite", writes Father Daniel (*op. cit.*, p. 309) "de m'expliquer toutes les propriétés de la lumière, et les démonstrations qu'il a données, touchant la réflexion et la réfraction des rayons. Il s'étendit fort au long sur cette matière; car cette endroit de sa philosophie, avec celui, où il explique les phénomènes de l'Aimant, est son endroit favori."

and the 'ontological argument' are introductory to the theoretical explanation of the generation and constitution of the physical world.

4.

Descartes' primary interest, then, was not in theology or metaphysics, and far less in the 'pure contents of consciousness'. It is doubtful even whether he can be written down as the type of disinterested scientific curiosity. He himself avers a passion for truth; but the truth he was seeking was, to quote the title of the *Discourse*, 'truth in the sciences', and the sciences for Descartes have a definitely practical aim, the harnessing of nature to the purposes of man. The will o' the wisp of his life was the conquest of death, not only for the soul, but also for the body. The significant change in the title of the *Meditations*¹ from the first to the second edition shows that Descartes knew early that he had not demonstrated the immortality of the *soul*, but his dream of the prolongation of the life of the *body* pursued him till his own premature death.² Descartes was dedicated from first to last to 'those studies which are of use to the whole human race'.³

In this practical interest, which is explicitly a part of the revulsion against Scholasticism, Descartes was only representative of the tendencies of the age. To Bacon, as to Descartes, there is no knowledge unrelated to the practical problem of human improvement, and the vision of Utopia is the source as well as the justification of his delvings into the mysteries of nature. The *Novum Organum* is also a 'discourse on method' and a method of 'discovery in the sciences'; but the aim of discovery, in the striking words with which the work concludes, is 'the supplying of man with bread'. The opening aphorisms of the same work comprise the classical exposition of this utilitarian view, but they are only caught up in the well-known words of *Discourse 6* summoning mankind to a knowledge 'which is useful in life' and 'by means of which we may render ourselves *masters and*

¹ ". . . in qua Dei existentia et animæ immortalitas demonstrantur" (ed. 1). ". . . in quibus Dei existentia, et animæ humanæ a corpore distinctio, demonstrantur" (ed. 2).

² E.g., *Disc. 6* (VI, 62, ll. 28-29); *Corresp.* IV, 329, ll. 16-17 (1645); and *Descrip. Corps humain* (1648), pref. (xi, 223, l. 15 f.). For contemporary jests on the subject see *Corresp.* V, 461 (Saumaise) and cf. Adam, *Vie*, p. 581 (Clauberg).

³ VIII B, 184, l. 23. So *Discourse 6* throughout, and Baillet's summary (I, 195): 'ne pouvant oublier la fin de sa Philosophie, qui n'étoit autre que l'utilité du genre humain, il résolut de faire une étude sérieuse de la Médecine, et de s'appliquer particulièrement à l'Anatomie et à la Chymie.'

possessors of nature. 'Masters and possessors of nature': 'human knowledge and human power meet in one'. The aim of philosophy-science is for Descartes and Bacon alike the control of nature through the understanding of nature, and both thought their new methods would lead at once to such discoveries as would bring the resources of nature within our immediate grasp.

It is a question whether either method did, as a matter of history, further the work of discovery in the sciences. So far as Bacon is concerned, a recent judgment is that "the actual course which science has taken, even if it has been in accord with Bacon's principles and has lead to the results which he desired to anticipate, has been influenced little, if at all, by his writings";¹ while one of the most profound modern students of Descartes² has given a negative answer to the problem he himself propounded as to whether Descartes' method was really of importance (outside the sphere of pure mathematics) even for his own discoveries. Yet whether or no the *Discourse on Method* really revealed any 'truth in the sciences', or whether or no the *Novum Organum* really helped to the 'kingdom of man', the significant fact is that such was the explicit intention of their authors. The justification of method is for both thinkers alike its practical results, and Descartes could have subscribed wholeheartedly to the Baconian aphorism (*N.O.* I, 73): "fruits and works are, as it were, sponsors and sureties for the truth of philosophies". He defines wisdom as a "perfect knowledge of all things that man can know both for the conduct of his life and for the conservation of his health and the invention of all the arts", and philosophy as "knowledge of those truths which can be perceived by the natural light and *further human needs*".³

5.

The death-blow to Cartesianism was given not by the satire or logical arguments of Jesuit Fathers, but by the sober theorems of Newton. The *Principia* and *Optics* showed by reference to fact the falsity of the positions revealed to Descartes by the 'natural light'. The whole physical theory of Descartes crumbled at a touch, and its critics were not slow to show why. Facts may be analysed and systematised by the human reason but cannot be created by it.

¹ C. D. Broad, *The Philosophy of Francis Bacon*, Cambridge, 1926, p. 62.

² G. Milhaud, *Descartes savant*, Paris, 1921, the ripe fruit of the enquiry opened in the dissertation (Montpellier, 1894): *Num Cartesii methodus tantum valeat in suo opere illustrando quantum ipse senserit?*

³ *Princ. Phil.*, pref. (IXB, 2, ll. 10-13); *Ep. ad. Voet.* (VIII B, 26, ll. 3-5).

The later developments of Cartesianism which made it open to these criticisms have their origin already in the *Discourse* (they are clear enough, indeed, even before that, in the *Regulae*). The characteristic of the Method is its deification of mathematics, not, as Descartes is careful to tell us, the mathematics of contemporary mathematicians, but that 'pure' mathematics the vision of which had appeared to the Greeks. It is this universalising of the ideal of mathematics to which is due the failure as well as the success of Cartesianism.

Its immediate consequence, adumbrated already in the *Discourse* but enunciated clearly only in the *Meditations* (5, end), was the rejection from the interpretation of nature of everything non-mathematical. Mathematics and physics, as Descartes is reported to have explained some years later in the course of conversation,¹ deal alike with 'objects which are true and real and have a true and real nature'. The only difference between them is that 'whereas physics considers its object not only as true and real being but as existing actually and as such, mathematics considers its object only as possible and as that which, while not actually existing in space, nevertheless can so exist'. Physical existence thus ceases to be relevant; all that matters is conformity to mathematical type. Actuality yields to possibility, fact to formula, and we are embarked on the fatal sea of the *a priori*.

It is only fair to say that although such is the clear tendency of Cartesian thought, it by no means represents the practice of Descartes himself. His realisation of the need of 'expériences' (both 'experiments' and 'experiences') was almost Baconian in its emphasis, and we know he held Bacon in high honour just because of Bacon's demand for facts. He will have nothing to do with those philosophers who, neglecting 'experimenta', "think that truth will spring from their brain like Minerva from the head of Jupiter" (*Reg.* 5, end), and he definitely asserts, in 1638 at least (*Corresp.* II, 142, l. 5 f.), that geometrical demonstration in matters of physics is an impossibility. Idealism was not yet to try to demonstrate *a priori* that we can have no more than five senses, and Descartes' was still the wiser path of studying anatomy by practical dissection.² But for all Descartes

¹ With Burman (1648) = *Corresp.* V, 160; cf. already *Regulae*, 14 (X, 448, ll. 18-22).

² *Corresp.* III, 353; Baillet, II, 273. 'Mais vous en pourrés estre encores plus certain,' writes Descartes in *Dioptrique* 5 (VI, 115, l. 9 ff.), 'si, prenant l'oeil d'un homme fraîchement mort, ou, au défaut, celui d'un bœuf ou de quelqu'autre gros animal, vous coupés dextrement vers le fonds,' etc.

own sober attitude towards fact his mathematical bias forced him to the primacy of mind. The 'method' became transformed into a system, the logic into a metaphysics.

The consequences of these vicissitudes may be seen most readily in Locke. Descartes' fundamental metaphysical position, the distinction of matter from mind, was offered by him explicitly as the basis of his mathematico-physical theory of the equation of matter with extension. The whole of this is rejected by Locke, physics and metaphysics alike, and with it Descartes' well-known attempt in the ontological argument to draw the fullest consequence from the autonomy of mind. In the same way we have Locke's reiterated criticism of the very possibility of a demonstrative science of nature, a criticism which puts asunder the mathematics and physics joined so decisively by Descartes.

It would probably be wrong to see in this last and all-important point the specific influence of Newton. The *Principia* appeared in 1687, the *Essay* in 1690; and the *Essay* treats the 'incomparable' Newton as the very embodiment of the ideal of science. Yet Locke's rejection of physics as a demonstrative science goes back to the early Drafts of 1671, and that on grounds similar to those adduced later in the *Essay*, to wit, the non-'necessary' character of the 'concomitance' of qualities within any substance and the mysterious nature of the idea of substance as such. But whether Locke's rejection of an *a priori* physics is due to the influence of Newton or not, it would have been reinforced by the study of Newton, and we know that Locke not only studied Newton's results but meditated on his method.

The consequences of Locke's meditation on the method of Newton are curiously instructive. They may be summed up as a return to Descartes. The 'rules' of the *Discourse* are only repeated in Locke's account of the true method of demonstration as consisting in the 'intervention' of 'intermediate ideas', an account associated in one place specifically with the name of Newton.¹ If we couple with this Locke's stress on 'clear and distinct ideas' we may call Locke a Cartesian, but a Cartesian

¹ Locke's *Essay*, IV, I, § 9 (cf. IV, 2, § 2 ff., 3, § 18, etc.; and *Note on the Relationship between Locke and Descartes*, MIND, July, 1935, p. 414 f.). In this connexion see the illuminating anecdote quoted in Fox-Bourne's *Life*, II, 216 n. It should be remarked that the *Principia* was drafted in 1666 and that Newton (after 1672) would have come frequently to London to attend the meetings of the Royal Society. On the other hand there seems to be no trace of the 'intervention' theory of demonstration before the final appearance of the *Essay* in 1690.

in the sense of a disciple of the *Discourse*, not of the *Essays* or the later *Meditations*.

One wonders what the author of the *Essays in the Method* would have said to this :¹ " To return to the study of natural philosophy : though the world be full of systems of it, yet I cannot say I know any one which can be taught a young man as a science wherein he may be sure to find truth and certainty, which is what all sciences give an expectation of. I do not hence conclude that none of them are to be read ; it is necessary for a gentleman in this learned age to look into some of them to fit himself for conversation : but whether that of Descartes be put into his hands, as that which is most in fashion, or it be thought fit to give him a short view of that and several others also ; I think the systems of natural philosophy that have obtained in this part of the world are to be read more to know the hypotheses, and to understand the terms and ways of talking of the several sects ; than with hopes to gain thereby a comprehensive, scientific and satisfactory knowledge of the works of nature. . . . But I would not deter anyone from the study of nature because all the knowledge we have, or possibly can have of it, cannot be brought into a science. There are very many things in it that are convenient and necessary to be known to a gentleman ; and a great many other, that will abundantly reward the pains of the curious with delight and advantage. But these, I think, are rather to be found amongst such writers as have employed themselves in making rational experiments and observations, than in starting barely speculative systems. . . . "

Even the physics of ' rational experiment and observation ' is thus become no more than a polite accomplishment for a ' gentleman ', and the ' barely speculative systems ' are of no value at all. Even Newton's contribution is very carefully delimited to the showing " how far mathematics, applied to some parts of nature, may, upon principles that matter of fact justifies, carry us in the knowledge of some, as I may so call them, particular provinces of the incomprehensible universe ".² Only fifty years have elapsed since the mathematical ideal of the *Discourse* was to bring us to ' truth in the sciences '. Now the highest triumph of the mathematician has to be ' justified ' by ' matter of fact ', and is restricted to ' particular provinces ' of a universe which remains ' incomprehensible '. The ' universal science ' announced by the *Discourse* has vanished with the collapse of

¹ Locke, *Of Education* (1690), § 193.

² *Op. cit.*, § 194.

the *Essays* which were to be its 'proofs',¹ and we are left with a method of setting out our empirical discoveries.

We are led thus to the historical paradox of the *Discourse*: it comes to its own only with the rejection of what, in Descartes' own eyes, was its justification. The *Discourse* is only a prelude to the *Essays*, but it is through the death of the *Essays* that the *Discourse* came to its immortality.

6.

The *Essays* are the type of Descartes' scientific work: they are contributions to science made by the help of the method. They are therefore illustrations of the method, concrete examples of its application. Or so at least Descartes would have us believe. The *possibilities* of the method are for him illimitable: by its help there is nothing 'so remote that we cannot reach to it or so obscure that we cannot reveal it'. But the 'first fruits' are those he gives us himself in the *Essays*, and the *Discourse*, the method, is only as it were the seed. It is legitimate to ask, therefore, how far the fruit was in fact the product of the seed, that is, how far the *Essays* were in fact 'essays in' the method.

It is of little account here to go into the list of the anticipations of Descartes' doctrines by others, enumerated somewhat maliciously by Leibniz.² The main question remains unaffected. Even if his discoveries were discovered by others before him, his own claim that his discovery of them was due to the use of the new method might be maintained and established. Can the connection between the *Essays* and the *Discourse* be justified? In other words, is the method really a logic for science?

The answer to this question is, as we have seen, in the negative. The method is fruitful in mathematics because it *is* mathematics; but outside the sphere of mathematics, even in Descartes, it has little heuristic value. It is no accident that in the history of science Descartes is remembered only as a mathematician, or that the only work of his own which continues the *Regulae* is the *Geometry*.³ So far as concerns the two arts of medicine and mechanics (celestial or otherwise) in which he saw the greatest need and use for his method, no real discovery of any kind stands to his credit. He is noteworthy as a psychologist, but even he

¹ See the title originally proposed for the *Discourse* (*Corresp.*, I, 339, ll. 18-25).

² I know this passage only from Hallam (*Literature of Europe*, 1839, III, 267-268, n.), who himself quotes from Brucker, but there are many others of similar general import (e.g., Erdmann, pp. 120-121).

³ Cf. Sirven, *Années d'Apprentissage de Descartes* (Albi, 1928), p. 419 f.

did not offer his treatise on the *Passions* as an 'essay' in the method.

The paradox of the *Discourse* is thus reinforced by its history in Descartes' own thought. Judged by the only criterion its own author would have recognised, its fate would have been melancholy. It would have stood as a literary, not a scientific, achievement ('history', as he would have said, not 'science'),¹ a record of a mind which strove for much but effected nothing in the only sphere that matters, the sphere of *discovery*. With the collapse of the physics the preface to the method which revealed the physics would have been remembered only because its last obsequies had been carried out by Voltaire.

Yet it was with the high serenity of the *Discourse* as with the prophetic frenzy of the *Novum Organum*: it survived through its own inherent distinction. Composed as an introduction to the *Essays* and offered as a logic ancillary to scientific discovery, it was its good (not its bad) fortune that the discoveries it announced were either not discoveries at all or found to be untrue. The break-down of the physics proved the opportunity for the isolation of the logic and its treatment as an independent entity. The *failure* of Cartesianism lay in its *connecting* the *Discourse* with the *Essays*. The history of its *triumph* is the history of their dissociation.

7.

The fascination of the *Discourse* lies in the clarity and distinctness which it both demands and exhibits. It is the manifesto of a mind in the immediate and conscious grasp of a new instrument, and it communicates a sense of unfettered power. How often the phrase rings and rings again: "the highest point which the mind is capable of reaching". Little matter that that point was not reached either in the *Essays* or in any of the works which followed them. The sight from afar of the Promised Land is often a reality more real than the Promised Land itself.

If one compares the method of Descartes with that of Bacon the advantage is not always with the former, but what Bacon gains in profusion and suggestiveness is compensated for in Descartes by concentration. By the side of the infinitely-coloured genius of Bacon, that of Descartes is both meagre and rigid, but this very narrowness of outlook gave him a vision unique for depth and penetration. If the inspiration of Bacon,

¹ Reg. 3 (X, 367, ll. 22-23), and more fully, letter to Hogelande, (1640) *Oeuvres* (A-T), *Supplément*, p. 2.

like that of Aristotle, was from the manifold variety of natural history, the inspiration of Descartes, like that of Plato, was from the inflexible uniformity of geometry. His mind was geometrical in the full meaning given to that word by Pascal: luminous, intense, confined.

Many writers have celebrated the triumph of the mathematical idea in the development of modern science, and students like Meyerson with his insistence on the stubbornness of the irrational are as few to seek as hard to answer. But to the enquirer into the manifold expressions of the human spirit the fate of the *Discourse* offers reflections of another kind.

The *Discourse*, as we have seen, came into its own with the discredit of the *Essays*; the stone rejected of science became the corner-stone of philosophy. Yet this is not to the shame of philosophy. The science of the seventeenth century (and who can explain that century of genius?) was in some measure prophecy rather than science, and inspiration, which is a poor substitute for fact, is one of the major stimulants to reflection: The trumpet-calls of Bacon, like the mathematical formulæ of Descartes, suggest problems which go beyond themselves, and it is no matter for wonder that (for all the expressed intentions of their authors) they rose above the petty business of controlling nature to our ends. After all, as Voltaire remarks, "les inventions les plus étonnantes et les plus utiles ne sont pas celles qui font le plus d'honneur à l'esprit humain".

We have here an instance of a universal truth. Scientific knowledge soon grows out of date. What to one generation is new and important is to the next either false or commonplace, and the discoveries which revolutionise the mechanics of living are often scandalously casual. How trite to us is the theory of the circulation of the blood which fills a whole (and the only dull) chapter in the *Discourse*, and how right is Descartes¹ in commenting on the incidental character ('à la honte de nos sciences') of the discovery of optical lenses. But philosophical enquiry remains what it was, and we are still agitated by the problems which agitated a Plato or a Descartes. The *Discourse on Method*, shorn of the *Essays* to which it is a prelude, shorn of its fifth chapter on physiology, shorn even of that essential part of its title which gives meaning to the word 'method'—the *Discourse* remains as a record of the self-revelation of the human spirit in one of its many paths to truth. But whether truth lies even in a 'revised version' of the *Dioptric*, the *Meteors* and the *Geometry*, is another question entirely.

¹*Dioptrique*, I (VI, 81, l. 19 ff.).