THE METHOD, MEDITATIONS AND PHILOSOPHY OF DESCARTES

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RENE DESCARTES

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SPECIAL INTRODUCTION

To the Frenchman, René Descartes, modern learning is indebted for some of the most potent factors in its advancement. These are: in Mathematics, the invention of the Binomial Theorem and the application of Algebra to Geometry in the Analytical Geometry; in Physics, the suggestion of the evolution of the universe through Vortices and the discovery of the laws of the Refraction of Light; in Physiology, the doctrine of the Animal Spirits and the theory of the Mechanism of the soul's operation in the body; in Philosophy, the finding of the ultimate reality in subjective consciousness and the deducting thence of an argument for, if not a proof of, the Existence of God; in Epistemology, the grounding of scientific Law on the existence of a true God; in Ethics, the tracing of evil to the necessary error arising from judgments based on finite and therefore imperfect knowledge.

Whatever significance we attach to the alleged flaw in the argument in proof of God's existence drawn by Descartes from our mind's necessary conception of a perfect being, which conception in turn necessarily implies the existence of its object, the fact remains that in this ultimate unity of the soul's apperception whereby the many are brought into relation to a single all-embracing, all-regulating Whole lies the possibility of a science of the universe, and that in uniting the subjective certainty of consciousness with the clear precision of mathematical reasoning Descartes gave a new and vital impetus to human learning in both its physical and metaphysical endeavors.

René Descartes (Lat. *Renatus Cartesius)* was born in La Haye, Touraine, France, on the 31st of March, 1596. His parents were well to do, of the official class, and his father was the owner of considerable estates. His mother dying soon after his birth, he was given in charge of a faithful

nurse, whose care for him, a child so frail that his life was nearly despaired of, was afterward gratefully rewarded. His father intrusted his education to the Jesuits and at the age of eight years he was sent to the college at La Flêche in Anjou, where he remained eight years. It was then, in his seventeenth year, that we read of his becoming dissatisfied with the hollow and formal learning of the Church schools and demanding a free and deeper range for his mental faculties. One study, favored of the Jesuits, mathematics, so deeply interested him that on leaving the college and going to Paris to taste the pleasures of a life in the world, he became in a year's time wearied of its dissipations and suddenly withdrew himself into almost cloistral retirement, in a little house at St. Germain, to give himself up to the fascinations of Arithmetic and Geometry. The disturbed political life of the capital led him to leave France, and in his twenty-first year he went to the Netherlands and enlisted in the army of Prince Maurice of Orange. After two years' service in Holland during an interval of peace, he enlisted again as a private in the Bavarian service in the war between Austria and the Protestant princes. In this war he was present at the battle of Prague, and in the following year he served in the Hungarian campaign. Quitting the service in the year 1621, he journeyed through the eastern and northern countries returning through Belgium to Paris in 1622. Disposing of some inherited property in a way to yield him a comfortable income he now starts on a tour in Italy and Switzerland. Paying his vows at Loretto and visiting Rome and Venice, he returns again to France in 1626, where he resumes his mathematical studies with his congenial companions, the famous mathematician Mydorge and his former schoolmate the priest Mersenne. He was now interested in the study of the refraction of light, and in the perfecting of lenses for optical instruments. His military zeal again caused an interruption of these peaceful studies in calling him away to be a participant of the siege of Rochelle in 1628. Returning to Paris, his mind divided

between his delight in adventure and the charms of the deeper problems of science and philosophy, and finding a life of seclusion impossible there, at the] suggestion of Cardinal Berulle, the founder of the Congregation of the Oratory, he leaves Paris and in 1629 settles in Holland where for twenty years he devotes himself to developing his philosophical system and publishing his works. Three times he visits Paris to look after his family affairs and to receive the pension twice awarded him by the Government. He made a hasty visit to England in the study of magnetic phenomena in 1630.

The last year of his life was spent in Stockholm, Sweden, whither he had been called by the young Queen Christiana, daughter of Gustave Adolphus, who, in her ambition to adorn her reign with the lustre of learning, desired the immediate tutelage of the now renowned philosopher, as well as his assistance in planning an academy of sciences. In the pursuit of these duties under arduous circumstances the philosopher (compelled to give an hour's instruction daily to his energetic royal pupil at five o clock in the morning) contracted an inflammation of the lungs, and ten days after delivering to her the code for the proposed academy, he died. His remains were carried to France and after remaining in the Pantheon until 1819 they were transferred to the Church of St. Germain des Pro's, where they now repose. Gustave III. erected a monument to his memory at Stockholm.

If such a thing can be conceived as a knighthood of pure intellect it was emphasized in this illustrious Frenchman whose 3 career almost entirely outside of his native land gives the country of his birth a place in the front ranks of philosophic achievement. While accounted generally the founder of the rationalistic or dogmatic philosophy which underlies modern idealism, on the other hand it may be claimed with equal propriety, as Huxley showed in his address to the students in Cambridge in 1870, that the principles of his “*Traité d' l'hómme*” very nearly coincide

with the materialistic aspects of modern psychophysiology. A man so devout in spirit that his “Meditations” read like the “Confessions” of St. Augustine and so loyal to his Church that he made it the first of his maxims of conduct “To abide by the old law and religion,” and who died in the happy conviction that he had succeeded in proving with a certainty as clear as that of mathematics the existence of God, he was, in the half century succeeding his death, to have his works placed in the Index Expurgatorius by the Church, his teachings excluded from the university, and an oration at the interment of his remains in Paris forbidden by royal command. In England, Bishop Parker of Oxford classed Descartes among the infidels with Hobbs and Gassendi, and Protestants generally regarded as atheistic his principle that the Bible was not intended to teach the sciences, and, as an encroachment on the Church's authority, his doctrine that the existence of God could be proved by reason alone. The man who perhaps more than any other has brought the lustre of philosophic renown upon France lived nearly all the years of his literary activity beyond its borders, taught in none of her schools and even as a soldier fought in none of her foreign wars. Laboring for years and with unflagging zeal in the elaboration of his Equation of the Curve and his system of symbols which made possible the Binomial Theorem, yet he avows that geometry was never his first love and that mathematics are but the outer shell to the real system of his philosophy. Nothing, at least, would satisfy him short of the universal mathesis or a view of relations and powers so universal as to embrace the whole field of possible knowledge. He was never married. Although he wrote poems and was devoted to music in his youth, yet he seems to fight shy of even these recreations as he does of the enticements of friendship, preferring the cool and calm states of solitude as conducive to his life's chosen task, — that of finding the truth of science in the truth of God. The twenty years of his life in Holland during which he resided mostly in a number

of little university towns was the time of a brilliant court under the stadtholder Frederick Henry and of the famous art of Rembrandt and the scholarship of Grotius and Vossius. But these were as nothing to Descartes who shows a contempt for all learning and art for their own sake. Knowledge, he maintained, must be grounded in intelligence rather than in erudition. He studies the world, men, states, nature only as spectacles of a deep inner and immortal principle into whose secret he would penetrate. For this he keeps himself aloof from personal and political entanglements, not allowing even his family affairs to engross him; and, while he keeps himself in touch with intellectual movements in Paris through the correspondence of his friends there, he does so with the precaution to keep his own whereabouts a secret from the world at large. It is as if he would make his mind a perfectly clear, cold crystal reflecting like the monad of the later system of Leibnitz, in perfect distinctness that truth of the universe and its God that he would give to the world. Destined as they were to be for a time put under the ban of both the Church and the universities, yet immediately on their publication, the doctrines of Descartes were received with a popular enthusiasm that made them the fashionable cult of Cardinals, scholars, and princes in the court of Louis XIV., and the favorite theme of the *salons* of Madame de Sevigné, and the Duchesse de Maine. Although already forbidden by the Index in 1663 and condemned as dangerous to the faith by the Archbishop of Paris in 1671, still in 1680 the lectures of the popular expositor of the new philosophy, Pierre Silvan Regis, were so sought after in Paris that seats in the audience hall could with difficulty be obtained. The principle of his physics and mathematics soon assumed their essential place in the progress of modern science and in Holland, where from the first the new philosophy found many advocates, Spinoza, seizing upon the Cartesian principle of the development of philosophy from the *a priori* ground of the most certain

knowledge, founded his system of Idealistic Monism which has largely entered into all the modern schools of speculative thought.

What has given Descartes a unique hold upon the thought of modern times is his making the mind's position of universal doubt the proper starting place in philosophy. This he does, however, not in the spirit of skepticism, but in the effort to construct a system of truthful knowledge. As Bacon was dissatisfied with the assumption by the schools of *a priori* principles that had no ground in experience, so Descartes, finding himself disposed to question the authority of all that was taught him, conceived the idea of allowing this very doubt to run its full course, and so of finding what ground, if any remained, for a certain knowledge of anything whatever. Thus doubt as the natural attitude of the mind, instead of being combatted as an enemy to even the highest and surest knowledge, was itself to be forced to yield up its own tribute of knowing. This it does in bringing the doubter to the first and fundamental admission that in doubting he is thinking, and that in order to think he must at least exist. Therefore, the existence of the thinker, or the fact of thinking, is a fact beyond the possibility of doubt. Hence the basic maxim of the Cartesian philosophy, *Je pense, donc je suis*. In developing his philosophic method, Descartes lays down the following rules for his guidance:

I.

Never to accept anything as true which I do not clearly know to be such.

II.

Divide difficulties into as many parts as possible.

III.

Proceed from the simplest and surest knowledges to the more complex, and—

IV.

Make the connection so complete, and the reviews so general, that nothing shall be overlooked.

“Convinced,” he says, “that I was as open to error as any other, I rejected as false all the reasonings I had hitherto taken as demonstrations; also that thoughts, awake, may be as really experienced as when asleep, therefore all may be delusions; yet in thinking thus I must be a somewhat; hence *cogito ergo sum*. The doubter's thinking proves his existence. I conclude that I am a substance whose existence is in thinking, and that there is no proof of the certainty of the first maxim to be adopted except that of a vision or consciousness as clear as this that I have of my own existence.” But in thinking of his own existence, he is immediately convinced of the limitations and imperfections of his mind from the fact of its imperfect knowledge of things causing him to doubt: hence he is led to infer the existence of a being who is perfect and without limitations; for it is impossible to conceive of imperfection without conceiving at the same time of perfection; and it is this perfect being alone which can be the cause of all other beings, since it must be the perfect which gives rise to imperfect and finite rather than that the imperfect should be the cause of the perfect. Hence we derive the idea of the being of God as the perfect being. But the idea of the perfection of anything involves that of its existence; hence Descartes concludes by a logic, whose validity has often been challenged, that the perfect being must exist; and hence, he holds, we are assured of the existence of God. The proof is strengthened also by the reflection that the idea itself of a perfect being could only have come into a finite mind from such a perfect source. The idea of God in the human mind at once implies the existence of God as the only possible source of this idea; and the idea of God as a perfect being without existence it would be impossible to conceive. Further, the knowledge now clearly attained of the existence of God shows us that God as perfect must be a beneficent being whose only object toward his creatures must be to enlighten and to bless them. Therefore, he would not create beings only to deceive them by making

them subject necessarily to delusion. The evidence of the senses, therefore, as to the existence of an objective world which is as real and as certain as this certain world of thought, must be a true evidence. The external world exists as truly as the internal. But as external, it is utterly without thought and without consciousness. The created universe is, therefore, under God, who is the one perfect self-existent Substance, dual in its nature, or composed of two subordinate substances utterly discrete in their nature and incapable of any intercommunication. The one is the world of thought, the other the world of extension. To the one belong our minds, to the other our bodies. But while there can be no intermingling or community of those substances so absolutely unlike, yet there is in man a minute organ, the pineal gland in the brain, where the two alone come into such contact that, by a miraculous and constant intervention of deity, the action of the soul is extended into, or made coincident with, that of the body. This discreteness of the two planes, or degrees of substance, matter and thought, their perfect correspondence and their mutual influence by contiguity and not by continuity or confusion, forms one of the landmarks of modern philosophy, and is carried later by Swedenborg into a much more perfect development in his doctrine of Discrete Degrees and their Correspondence. The treatment of the problems of the mutual influx of these two degrees of substance, mind and matter, has been a distinguishing mark of subsequent schools of philosophy, culminating in the theory of parallelism, which is current at the present day. While Descartes accounts for the parallel action of these two utterly unlike and incommunicable substances by the supposed immediate operation of God upon both on the occasion of either being affected, his immediate follower Geulinx regards the coincident action of the two substances as divinely foreordained, so that the action of one accompanies that of the other, like the movements of the hands of two clocks made to run exactly alike, and yet in no

way to interfere with one another. This is the theory of “pre-established harmony” applied by Leibnitz to his world of monads. Malebranche, however, another disciple of Descartes, held that the interaction of the two planes, in nature inexplicable, becomes possible through their hidden unity and harmony in God, in whom is all life and motion. Swedenborg, opposing with Descartes the doctrine of physical influx, sets forth the doctrine of a perfect “correspondence” of the discrete degrees of being, such that motions may be imparted by the contact of these degrees without any intermingling of their substance and by virtue of the harmony of their interior form, all exterior and material things being symbols and vessels of interior things.

With Descartes the lower animals and men as to their purely animal nature are perfect machines and form a part of the stupendous mechanism of the world. Man alone by virtue of his rational soul presides like an engineer in the midst of this vast machinery and governs the conduct of the body by the dictates of wisdom and virtue. Man's soul, a thinking principle, is composed of will and intellect, and the intellect is composed of partly innate and partly derived ideas. The thoughts of the finite mind must be imperfect, whereas the will partakes of the infinite freedom of God. The tendency of the human will is therefore to wander beyond that which it clearly sees in its own limited understanding, and hence from the abuse of the finite human thought arise error and sin. These privations suffered by human thought are however evidences of God's goodness and justice since the universe is more perfect for the multitude and variety of its imperfect parts. God is in every one of our clear thoughts, and so far as we abide by them in our judgments we are right; so far as in our own free will we transgress or exceed them we are in error and come into unhappiness. As regards the thought of God it is not the thought itself that effects the existence of God but the necessity of the thing itself determines us to have this

thought. The thought of God being therefore the ground of all the certainty of any knowledge of anything, the truth of all science must depend on the knowledge of a true God The soul's immortality is inferred in the sixth “Meditation” from the fact that we have a clear and distinct idea of thought, including sensations and willing, without anything material appertaining to it; hence its existence must be possible independent of the material body.

Such is an outline of Descartes' arguments in proof of the existence of God, and of his method of attaining to true knowledge. They are given in the “*Discours de la Méthode pour bien conduire le raison et chercher la Vérité dans les Sciences,*” published in the “*Essais Philosophiques*” at Leyden, 1637, and in the “*Meditationes de prima philosophia, ubi de Dei existentia et animæ immortalitate; his adjunctæ sunt variæ objectiones doctorum virorum in istas de Deo et anima demonstrationes cum responsionibus auctoris,”* published in Paris 1641; and in another edition in Amsterdam in 1642. A French translation of the “Meditations” by the Duke of Luynes and of the objections and replies by Clerselier, revised by Descartes, appeared in 1647. In 1644 appeared in Amsterdam the complete system of Descartes' philosophy under the title “*Renati Descartes Principia Philosophiæ”* This, after a brief outline of the subjects discussed in the “Meditations,” deals with the general principles of Physical Science, especially of the laws of motion and the doctrine of the evolution of the universe through vortices in the primitive mass, resulting in the whirling of matter into spherical bodies, the falling or sifting through of angular fragments into the solid central bodies and the formation thence of matter and the firmament and planets. In this vortical theory of creation which anticipates that of Swedenborg, Kant, and Laplace, the method is that of deducing hypothetical causes from actual results or projecting the laws of creation backward from the known effect to the necessary cause. It differs from the theory of Swedenborg in producing the center

from the circumference instead of animating the center or the first point with its motive derived from the infinite and thus developing all motions and forms from it. (See Swedenborg's "*Principia*," Vol. I., chap II. "A Philosophical Argument concerning the First Simple from which the World, with its natural things originated; that is concerning the first Natural Point and its existence from the Infinite.") The phenomena of light, heat, gravity, magnetism, etc., are also treated of. Descartes here while not venturing to openly oppose his rationalistic theory of the creation to that of the Bible, apologizes for suggesting the rational process, in that it makes the world more intelligible than the treatment of its objects merely as we find them fully created.

While rejecting the Copernican theory by name out of fear of religious opinion, he maintains it in substance in his idea of the earth as being carried around the sun in a great solar vortex.

In the "*Essais Philosophiques*" appeared also, together with the "*Discours de la Méthode"* the "*Dioptrique*," the *"Météores,"* and the "*Géométrie*." The "Principles of Philosophy" were dedicated to the Princess Elizabeth, the daughter of the ejected elector Palatine, who had been his pupil at The Hague. To his later royal pupil, the Queen Christiana of Sweden, he sent the "Essay on the Passions of the Mind" originally written for the Princess Elizabeth and which was published at Amsterdam in 1650. The posthumous work, "*Le Monde, ou traité de la lumière*" was edited by Descartes' friend Clerselier and published in Paris 1664, also the "*Traité de' l'homme et de la formation de fœtus,"* in the same year by the same editor. It was this work with its bold theory of the Animal Spirit as being the mechanical principle of motion actuating the lower animals by means of pure mechanism, without feeling or intelligence on their part, that raised such an outcry among the enemies of Descartes and was not deemed safe to publish during his lifetime. In it occurs the graphic

illustration of the animal system comparing it to a garden such as one sees in the parks of princes of Europe where are ingenuously constructed figures of all kinds which, on some hidden part being touched unawares by the visitor to the garden, the figures are all set in motion, the fountains play, etc. The visitors in the garden treading on the concealed machinery are the objects striking the organs of sensation; the water flowing through the pipes and producing motion and semblance of life is the animal spirit; the engineer sitting concealed in the center and controlling the whole is the rational soul.

"*Les Regles pour la direction de l'esprit*" which is thought to have been written in the years 1617–28 and to illustrate the course of Descartes' own philosophical development, and the "*Recherche de la vérité par les lumières naturelles*" were published at Amsterdam in 1701. A complete edition in Latin of Descartes' philosophical works was published in Amsterdam in 1850, and the complete works, in French, at Paris, edited by Victor Cousin, in 1824-26. In 1868 appeared, in Paris, *"Œuvres de Descartes, nouvelle edition precédée d'une introduction par Jules Simon."*

INTRODUCTION.

I.: Descartes—His Life and Writings.

The life of Descartes is best read in his writings, especially in that choice and pleasing fragment of mental autobiography, the *Discours de la Méthode*. But it is desirable to give the leading facts and dates of a career as unostentatious and barren of current and popular interest, as it was significant and eventful for the future of modern thought.

René Descartes was born on the 31st March, 1596. His birthplace was La Haye, a small town in the province of Touraine, now the department of the Indre et Loire. His family, on both sides, belonged to the landed gentry of the province of Poitou, and was of old standing. The ancestral estates lay in the neighborhood of Châtelleraut, in the plain watered by the Vienne, as it flows northward, amid fields fertile in corn and vines, to the Loire. The manor, called *Les Cartes*, from which the family derived its name, is about a league from La Haye. It is now embraced in the commune of Ormes-Saint-Martin, in the department of Vienne, which represents the old province of Poitou.

The mother of the philosopher was Jeanne Brochard, and his father was Joachim Descartes, a lawyer by profession, and a counsellor in the Parliament of Bretagne. This assembly was held in the town of Rennes, the old capital of the province, and there the family usually resided during the session. René was the third child of the marriage. The title of Seigneur du Perron, sometimes attached to his name, came to him from inheriting a small estate through his mother. His elder brother followed the father's

profession, and became in his turn a counsellor of the Parliament of Bretagne. He seems to have been a proper type of the conventional gentleman of the time. So far from regarding it as an honor to be connected with the philosopher, he thought it derogatory to the family that his brother René should write books. This elder brother was the first of the family to settle in Bretagne, so that it is a mistake to represent Descartes as a Breton. He was really descended from Poitou ancestry.

In 1604, at the age of eight, he was sent to the recently-instituted Jesuit College of La Flèche. The studies of the place were of the usual scholastic type. He mastered these, but he seems to have taken chiefly to mathematics. Here he remained eight years, leaving the college in 1612. After a stay in Paris of four years, the greater part of the time being spent in seclusion and quiet study, at the age of twenty-one he entered the army, joining the troops of Prince Maurice of Nassau in Holland. He afterward took service with the Duke of Bavaria, then made a campaign in Hungary under the Count de Bucquoy. His insatiable desire of seeing men and the world, which had been the principal motive for his joining the army, now urged him to travel. Moravia, Silesia, the shores of the Baltic, Holstein, and Friesland, were all visited by him at this time. Somewhat later, in 1623, he set out from Paris for Italy, traversed the Alps and visited the Grisons, the Valteline, the Tyrol, and then went by Innsbruck to Venice and Rome. In the winter of 1619-20, when, after close thinking, some fundamental point in his philosophy dawned on his mind, he had a remarkable dream, and thereupon he vowed to make a pilgrimage to Loretto. There can be little doubt that he actually fulfilled his vow on the occasion of this visit to Italy, walking on foot from Venice to Loretto. He finally settled to the reflective work of his life in 1629, at the age of thirty-three, choosing Amsterdam for his residence. Holland was then the land of freedom—civil and literary — and this no doubt influenced his decision. But he also, as he

tells us, preferred the cooler atmosphere of the Low Lands to the heat of Italy and France. In the former he could think with cool head, in the latter he could only produce phantasies of the brain.

Here, professing and acting on the principle, *Bene vixit bene qui latuit*, he meditated and wrote for twenty years, with a patience, force, and fruitfulness of genius which has been seldom equalled in the history of the world. His works appeared in the following order: *Discours de la Méthode pour bien conduire sa raison, et chercher la vérité dans les sciences; plus la Dioptrique, les Météores et la Géométrie, qui sont des Essais de cette Méthode*. Leyden: 1637. This was published anonymously. Etienne de Courcelles translated the Method, Dioptrics, and Meteors into Latin. This was revised by Descartes, and published at Amsterdam in 1644. The Geometry was translated into Latin, with commentary, by Francis von Schooten, and published at Leyden, 1649. The Meditations were first published in Paris in 1641. The title was *Meditationes de prima Philosophia, in qua Dei existentia et animæ immortalitas demonstrantur*. In the second edition, published under the superintendence of the author himself at Amsterdam in 1642, the title was as follows: *Renati Descartes Meditationes de prima Philosophia, in quibus Dei existentia et animæ a corpore distinctio demonstrantur. His adjunctæ sunt variæ objectiones doctorum virorum ad istas de Deo et animæ demonstrationes cum responsionibus auctoris*. The Meditations were translated into French by the Due de Luynes in 1647. The *Principia Philosophies* appeared at Amsterdam in 1644. The Abbé Picot translated it into French, 1647, Paris. The *Traité des Passions de l'Âme* appeared at Amsterdam in 1649.

Regarding the *Method* of Descartes, Saisset has very well said: “It ought not be forgotten that in publishing the *Method*, Descartes joined to it, as a supplement, the *Dioptrics*, the *Geometry*, and the *Meteors*. Thus at one stroke he founded, on the basis of a new method, two

sciences hitherto almost unknown and of infinite importance — Mathematical Physics and the application of Algebra to Geometry; and at the same time he gave the prelude to the *Meditations* and the *Principles* — that is to say, to an original Metaphysic, and the mechanical theory of the universe."

The appearance of the *Discours de la Méthode* marked an epoch not only in philosophy, but in the French language itself, as a means especially of philosophical expression. Peter Ramus, in his violent crusade against Aristotle, had published a Dialectic in French, but it was the *Discours de la Méthode* of Descartes which first truly revealed the clearness, precision, and natural force of his native language in philosophical literature. The use, too, of a vernacular tongue, immensely aided the diffusion and appreciation of the first great movement of modern thought.

Descartes, though a self-contained and self-inspired man, of marked individuality and a spirit of speculation wonderful for its comprehensiveness, had not the outspoken boldness which we are accustomed to associate with great reformers. He was not one, indeed, who cared to encounter the powerful opposition of the Church, to which by education he belonged. This is obvious from many things in his writings. He avoided, as far as possible, the appearance of an innovator, while he was so in the truest sense of the word. When he attacked an old dogma, it was not by a daring march up to the face of it, but rather by a quiet process of sapping the foundations. He got rid also of traditional principles not so much by direct attack as by substituting for them new proofs and grounds of reasoning, and thus silently ignoring them.

One little incident of his life shows at once the character of the man and of the times in which he lived, and the difficulties peculiar to the position of an original thinker in those days. He had completed the manuscript of a treatise *De Mundo*, and was about to send it to his old

college friend Mersenne in Paris, with a view to arrange for its printing. In it he had maintained the doctrine of the motion of the earth. Meanwhile (November, 1633), he heard of the censure and condemnation of Galileo. This led him not only to stay the publication of the book, but even to talk of burning the manuscript, which he seems to have done in part. Descartes might no doubt have taken generally a more pronounced course in the statement of his opinions; but, looking to the jealous antagonism between the modern spirit represented by philosophy and literature on the one hand, and the old represented by theology on the other, during the immediately preceding period of the Renaissance and in his own time, it *is* doubtful whether such a line of action would have been equally successful in gaining acceptance for his new views, and promoting the interests of truth. An original thinker, with the recent fates of Ramus, Bruno, and Vanini before his eyes, to say nothing of the loathsome dungeon of Campanella, may be excused for being somewhat over-prudent. At any rate, it is not for us in these days to cast stones at a man of his character and circumstances. In these times singularity of opinion, whether it imply originality and judgment or not, is quite as much a passport to reputation with one set of people as the most pronounced orthodoxy is with another.

Even in Holland, however, he was not destined to find the absolute repose and freedom from annoyance which he sought and valued so highly. The publication of the *Method* brought down on him the unreasoning violence of the well-known Voët (Voëtius), Protestant clergyman at Utrecht, and afterward rector of the university there. With the characteristic blindness of the man of theological traditions, he accused Descartes of atheism. Voët allied himself with Schook (Schookius), of Groningen. The two sought the help of the magistrates. Descartes replied to the latter, who, in a big book, had accused him of scepticism, atheism, and madness. The influence of Voët was such that he got the magistrates to prepare a secret process against

the philosopher. “Their intention,” says Saisset, “was to condemn him as atheist and calumniator: as atheist, apparently because he had given new proofs of the existence of God; as calumniator, because he had repelled the calumnies of his enemies.” The ambassador of France, with the help of the Prince of Orange, stopped the proceedings. Descartes is not the only, nor even the most recent instance, in which men holding truths traditionally cannot distinguish their friends from their foes.

Queen Christina of Sweden, daughter of the great Gustavus Adolphus, had come under the influence of the writings of Descartes. She began a correspondence with him on philosophical points, and finally prevailed upon him to leave Holland, and come to reside in Stockholm. He reached that capital in October, 1649. The winter proved hard and severe, and the queen insisted on having her lecture in philosophy at five in the morning. The constitution of the philosopher, never robust, succumbed to the climate. He died of inflammation of the lungs, on the nth February, 1650, at the age of fifty-four. In 1666 his remains were brought to France and interred in Paris, in the church of Sainte-Geneviève. “On the 24th June, 1667,” says Saisset, “a solemn and magnificent service was performed in his honor. The funeral oration should have been pronounced after the service; but there came an order from the Court [in the midst of the ceremony] which prohibited its delivery. History ought to say that the man who solicited and obtained that order was the Father Le Tellier.” A finer illustration of contemporary narrowness before the breadth and power of genius could not well be found.

In 1796, the decree made by the Convention three years before, that the honors of the Pantheon should be accorded to Descartes, was presented by the Directory to the Council of the Cinq-Cents, by whom it was rejected. It was thus that the national philosopher of France was treated by ecclesiastic and revolutionist alike.

In 1819, the remains of Descartes were removed from the Court of the Louvre, whither they had been transferred from Sainte-Geneviève, to Saint-Germain-des-Prés. There Descrates now lies between Montfaucon and Mabillon.

II.: Philosophy in the Fifteenth and Sixteenth Centuries Preceding Descartes.

The first step in the continuous progress to the principle of free inquiry, whose influence we now feel, was taken in the fifteenth century. This epoch presented for the first time in modern history the curious spectacle of the supreme authority in matters of thought and faith turned against itself. The principle of authority had been consecrated by scholasticism. During its continuance, intellectual activity was confined to methodizing and demonstrating the truths or dogmas furnished to the mind by the Church. No mediaeval philosopher thought of questioning the truth of a religious dogma, even when he found it philosophically false or indemonstrable. The highest court of philosophical appeal in scholasticism was Aristotle; and the received interpretations of "the philosopher" had become identified with the dogmas sanctioned by the Church, and therefore with its credit and authority. But events occurred in the middle of the fifteenth century which tended to disparage the Aristotle of the Schools. Hitherto the writings of Aristotle had been known in Europe only through Latin translations, often badly and incompetently made from the Arabic and Hebrew. The emigration of learned Greeks from the empire of the East under the pressure of Turkish invasion, and finally the fall of Constantinople in 1453, led to the distribution of the originals of Aristotle over Italy, and the spread of the Greek language in Western Europe. With the knowledge thus acquired at first hand, Pomponatius (1462-1524 or 1526)

disputed the dogmas of the Aristotle of the Schools and the Church. Henceforward the Aristotelians were divided into two Schools,— the Averroists or traditional interpreters, and the followers of “the Commentator,” Alexander of Aphrodisias. Pomponatius was the head of the latter party. While still recognizing his authority as the highest, Pomponatius denied that the Aristotle which the Church accepted was the true one. The real Aristotle, according to his view, denied a divine providence, the immortality of the soul, and a beginning of the world; or, as he sometimes put it, Aristotle did not give adequate proof on those points. The philosopher and the Church were therefore in contradiction. This led to ardent discussion,— the opening of men's minds to the deepest questions,— the beginning, in a word, of free thought. And there was also the practical result, that the fifteenth-century philosopher denied what he as a Churchman professed to believe, or rather did not dare to disavow. It was obvious that the course of thinking could not rest here. It must pass beyond this, urged alike by the demands of reason and the interests of conscience.

But the inner spirit of scholasticism had pretty well worked itself out. It was a body of thought remarkable for its order and symmetry, well knit and squared, solid and massive, like a mediaeval fortress. But it was inadequate as a representation and expression of the free life that was working in the literature, and even in the outside nascent philosophy, of the time. It was formed for conservation and defense, not for progress. New weapons were being forged which must inevitably prevail against it, just as the discovery of gunpowder had been quietly superseding the heavy panoply of the knight. Several thoughtful men were already dissatisfied alike with the Aristotle of the schoolmen and the manuscripts. Opportunely enough, the circumstances which led to the discovery of the original Aristotle led also to the revelation of the original Plato. Some thinkers fell back on the earlier philsopher, stimulated to enthusiasm by the elevation of his

transcendent dialectic. Notably among these were Pletho (born about 1390, and died about 1490); his pupil, Bessarion (1395 or 1389–1472); Giovanni Pico della Mirandola (the nephew of Francisco, born 1463, died 1494); Ficino, tutor to Lorenzo de Medici (1433–1499); Patrizi (1529–1597). Influenced a good deal by the spirit of mediaeval mysticism, these thinkers for the most part clothed their Plato in the garb of Plotinus and the Neo-Platonists. Others were led to the still earlier Greek philosophers. The newly-awakened spirit of experience in Telesio (1508–1588) and in Berigard (1578–1667) found fitting nourishment in the Ionian physicists; and, later in the same line, Gassendi (1592–1655) revived Epicurus. All this implied the individual right of selecting the authority entitled to credence, and was a protest against scholasticism, and a step toward free inquiry.

The men of letters also helped to swell the tide rising strong against scholasticism. The abstract and often barbarous language of the schools appeared tasteless and repulsive alongside the rhythmic diction of Cicero, and the polished antitheses of Seneca. The spirit of imagination and literary grace had been repressed to the utmost in the schools. It now asserted itself with the intensity peculiar to a strong reaction. And in the knowledge and study of the forms of the classical languages, the mind is far beyond the sphere of mere deduction. It is but one remove from the activity of thought itself.

Mysticism, always operative in the middle ages, and indeed involved in the Neo-Platonism already spoken of, came to its height in the period of the Renaissance — especially under Paracelsus, (1493–1541) and Cardan (1501–1576) — and then under Boehm (1575–1624) and the Van Helmonts (father, 1577–1644, and son, 1618–1699). The principle of transcendent vision by intuition was in direct antagonism with the reasoned authority of scholasticism. Boehm's philosophy on its speculative side was an absolutism which anticipated Schelling, and Hegel

himself. The self-diremption of consciousness is Boehm's favorite and fundamental point. The superstition which lay at the heart of the mysticism of the time, and which showed itself practically in alchemy, led men by the way of experiment to natural science, especially chemistry.

At length in the sixteenth century, and, as if to show the extreme force of reaction, in Italy itself before the throne of the Pope and the power of the Inquisition, there arose in succession Bruno (b. about 1550, d. 1600), Vanini (1581 or 85–1619), and Campanella (1568–1639) — all deeply inspired by the spirit of revolt against authority, and a freedom of thought that reached even a fantastic license. Bruno in the spirit of the Eleatics and Plotinus, proclaimed the absolute unity of all things in the indeterminable substance, which is God; Vanini carried empiricism to atheism and materialism; and Campanella united the extremes of high churchman and sensationalist, mystical metaphysician and astrologist.

The thoughts of this period, from the fifteenth to well on in the sixteenth century, have been described as “the upturnings of a volcano.” The time was indeed the volcanic epoch in European thought. The principal figures we can discern in it seem to move amid smoke and turmoil, and to pass away in flame. The tragic fate of Bruno in the fire at Rome, and that of Vanini in the fire at Toulouse — both done to death at the instance of the vulgar unintelligence of the Catholicism of the time — form two of the darkest and coarsest crimes ever perpetrated in the name of a Church. The Church, which claims to represent the truth of God, dare not touch with a violent hand speculative opinion. It is then false to itself.

In France, and in the university of Paris, the stronghold of Peripateticism, Ramus (1515–1572) attacked Aristotle in the most violent manner. In Ramus was concentred the spirit of philosophical and literary antagonism to the schoolmen. It was wholly unmodified by judgment or discrimination, and it did not proceed on a thorough or

even adequate acquaintance with the object of its assault. Ramus is remarkable chiefly for the extreme freedom which he asserted in oratorically denouncing what he considered to be the principles of Aristotle; but he made no real advance either in the principles of logical method which he professed, or in philosophy itself. At the same time, the rude intensity and the passionate earnestness of his life were not unworthily sealed by his bloody death on the Eve of St. Bartholomew. The death of Ramus, though attributed directly to personal enmity, was really a blow struck alike at Protestantism and the freedom of modern thought.

Bruno, Vanini, Campanella, and Ramus foreshadowed Descartes and the modern spirit, only in the emphatic assertion of the freedom, individuality, and supremacy of thought. What in thought is firm, assured, and universal, they have not pointed out. They were actuated mainly by an implicit sense of inadequacy in the current principles and doctrines of the time. It was not given to any of them to find a new and strong foundation whereon to build with clear, consistent, and reasonable evidence. Campanella said of himself not inaptly: " I am but the bell *(campanella)* which sounds the hour of a new dawn."

Alongside of those more purely speculative tendencies, Copernicus, Kepler, Galileo, and Bacon represented the new spirit and theory of observation applied to nature. The formalism of the Schools had abstracted almost entirely from the natural world. It was a "dreamland of intellectualism." And now there came an intense reaction, out of which has arisen modern science. Bacon had given to the world the *Novum Organum* in 1620, seventeen years before the *Method* of Descartes, but his precept was as yet only slightly felt, and he had but little in common with Descartes, except an appeal to reality on a different side from that of the Continental philosopher. Descartes had not seen the *Organum* previously to his thinking out the *Method*. He makes but three or four references to Bacon in all his writings.