

## CHAPTER 2

### RENÉ DESCARTES' PHILOSOPHICAL CONTEXT

*Rara temporum felicitas, ubi sentire, quae veils;  
& quae sentias, dicere licit.*<sup>16</sup>  
(Tacitus)

#### 2.0 Introduction

The name of René Descartes is permanently characterised as a philosopher of the Scientific Revolution and sometimes aptly described as the “Father of Modern Philosophy” to mark the contribution he made to the achievement of human mind at the beginning of modern age. As a matter of fact, he has entered the canon of Western philosophy without any dispute of his significance and impact on the intellectual history of the Western world. Descartes’ philosophical experiment however had been prepared by an arduous effort of thought. And it is much more interesting, more instructive, and more profitable to study such intellectual effort in its historical context, which would illuminate and make it meaningful. Thus, it is with the context of Descartes’ philosophical experiment that I shall be occupied in this chapter in which I shall provide an analysis of the religio-intellectual context within which he developed his views on knowledge and its foundations as I think that we should not ignore the relations between philosophy and other areas of human experience such as religious, political, economic, literary and scientific thoughts.

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<sup>16</sup> ‘Fortunate are those times when one can think what one feels and says what one thinks.’ Cornelius Tacitus, *Histories* (New York: Penguin Books, 2009), I.1.

Before going further, and as far as historical scholarship is concerned, it should be noted that there are two main traditions of Descartes biography. Firstly, the French Catholic apologetic tradition—the goal of which is to establish Descartes as a great metaphysician and a fervent and pious Catholic philosopher.<sup>17</sup> Secondly, the scientific apologetic tradition which emphasises the analysis of Descartes' works as to show him as a great scientist who founded not only Modern Philosophy but also Modern Science.<sup>18</sup> Thus, I must confess that the present study belongs to neither the religious nor the scientific apologetic traditions. The extent and aim of the present chapter, however, is to understand the religious and intellectual milieu from which Descartes' thought has sprung up in order to fathom the meaning of his epistemology.

## **2.1 The Seventeenth Century Philosophical Background**

The world Descartes entered on 31 March 1596 was not a peaceful one. Rather it was a tumultuous time where Europe was convulsed by religious conflicts, marked by the Reformation and Counter-Reformation, and the scientific and philosophical revolutions; and, in fact, it was the former that brought about the latter. These religious conflicts began in 1517 when Martin Luther (1483-1546) nailed his Ninety-Five Theses to the door of the Castle Church of Wittenberg, at noon on All Saint's Day, as an offer to hold a disputation, or more to the point as a protest against clerical corruptions and abuses, especially in regard to the Indulgence. Later on these conflicts had developed into a great war of many diverse European peoples beginning in 1618 which is known as Thirty Years War (1618-48),

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<sup>17</sup> Adrien Baillet started this tradition in his *La Vie de Monsieur Des-Cartes* (1691), and continued recently by Geneviève Rodis-Lewis in her *Descartes: His Life and Thought* (1998). See, Richard Watson, *Cogito, Ergo Sum: The Life of René Descartes* (Boston: Godine, 2002), 22.

<sup>18</sup> The most recent work following this tradition is Stephen Gaukroger's *Descartes: An Intellectual Biography* (Oxford: Clarendon Press, 1995)

between the Catholic Holy Roman Emperor and some of his German Protestant states and developed into a struggle for continental hegemony with France, Sweden, Spain, and the Holy Roman Empire as the major protagonists, and it was ended by the treaty of Westphalia in 1648. Throughout those years, the wars claimed the lives of 10 percent of the population in England, 15 percent in France, 30 percent in Germany and more than 50 percent in Bohemia (Gillespie 2008, 130). It is a mistake, however, to assume that religious conflicts alone were responsible for these wars since they also had their political, economic, social and nationalistic roots as the logical outcomes of the crisis of policy of the old feudal ruling class in Europe at that time.<sup>19</sup> It is no doubt that the conflicts had tore the holes in the certainties of religious belief that the scientific and philosophical revolution could begin for the Reformation had questioned the traditional sources of religious authority and other forms of supposed knowledge. Thus, the turn of the seventeenth century was a time rich in promise. What will follow from now is a brief intellectual developments that took place at the time which would later directly or indirectly influence or shape Descartes' philosophical experiment.<sup>20</sup>

In 1591 François Viète (1540-1603), the true founder of modern mathematics,<sup>21</sup> published his revolutionary treatise *Introduction to the Analytical Art, excerpted as a separate piece from the opus of the restored Mathematical Analysis, or The New Algebra*. The work marked the transition from the ancient, concrete to the modern, abstract conception of the formal in mathematics, and one result of which metamorphosis was the

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<sup>19</sup> For a detail discussion on Reformation and Counter-Reformation in Europe, see G. R. Elton, ed., *The New Cambridge Modern History, Vol. 2, "The Reformation, 1520-1559"* (Cambridge: Cambridge University Press, 1990), J. V. Polisensky, "The Thirty Years' War", *Past & Present*, No. 6 (1954), 31-43.

<sup>20</sup> Heffernan's *Interpretive Essay* to the *Discourse on the Method* is very helpful in providing me historical facts on remarkable intellectual developments that took place in the sixteenth and earlier seventeenth centuries. René Descartes, *Discourse on the Method*, trans. George Heffernan (Notre Dame: University of Notre Dame Press, 1994).

<sup>21</sup> See Jacob Klein, *Greek Mathematical Thought and the Origin of Algebra*, trans. Eva Brann, With an Appendix containing Viète's *Introduction to the Analytic Art*, trans. The Reverend J. Winfree Smith (Cambridge: Massachusetts, 1968), p. 5.

*algebra speciosa* in which Viète introduced letters for quantities and superscript numerals to indicate squares, cubes, and so forth, which replaced an impossibly cumbersome system of special symbols—that later on lit Descartes’ mathematical interest. Between 1590 and 1592 the English dramatist and poet Christopher Marlowe (1564-1593), working from a source that had appeared for the first time at Frankfurt in 1587 (*The Story of Dr. Johann Faust, the Widely Decried Wizard and Black Magician*) wrote the tragedy of knowledge and damnation *Doctor Faustus*, in which the protagonist is determined to believe nothing but what he himself can prove: ‘...sic probo...’. In 1592 passed away Michel de Montaigne (1533-1592), the moderate sceptic and moralist who had virtually created the literary genre of the “essay”—from the French “essayer”, that is “to test”, “to try”, “to taste”—as an aphoristic and associative reaction against the systematic formalism of treatise writing and whose celebrated *Essais* (1580/1582/1587/1588/1595) pose a question to which there is perhaps only an unsettling answer, “*Que sçay-je?*,”<sup>22</sup> to which Descartes’ *Discourse* is an answer in more than one way—as I shall describe it in further detail in Chapter 3. In 1596 died Jean Bodin (b. 1530), who in his *The Six Books on the Republic* (1576) had paved the way for modern political theory and practise by founding the concept of “souverainité” or “majestas”, understood as the absolute and perpetual legislative and governmental power whose decisions are binding on the citizen as subject without any possibility of contradiction. In the same year too Johannes Kepler (1571-1630), the German astronomer who opposed the Ptolemaic, but supported the Copernican cosmology, published his Neo-Platonically inspired *The Cosmographical Mystery about the Wondrous Proportionality of the Celestial Spheres, and about the Genuine and Proper Causes of the Number, Magnitude and Periodic Motions of the Celestial Bodies, Demonstrated by means of the*

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<sup>22</sup> ‘What do I know?’, in “Apologie de Raimond Sebond” (“Apology for Raimond de Sebonde”), in Montaigne, *The Complete Essays*, trans. M. A. Screech (London: Penguin Books, 1993).

*Five Regular Geometrical Bodies*. As a matter of fact, it was the first attempt, proceeding from the principle of cosmic perfection, to explain the *machina mundi more geometrico* according to one structural law—by trying to establish both a connection between the “fact” that there were six planets and the fact that there are five regular polyhedra and a correlation between the distances of the planets from the sun and the radii of the spheres circumscribable to and inscribable in the polyhedra.

In 1600 the English physician and physicist William Gilbert (1540-1603) published the *New Physics of the Magnet and of Magnetic Bodies, and of the Big Magnet, the Earth*, which by its exemplary character as an experimental study of the phenomenon of magnetism—of the magnetic properties of bodies, including the earth—marks a beginning of the application of the empirical, although not quantitatively but qualitatively empirical, method to the investigation of nature. In the very same year also, the Italian natural philosopher Giordano Bruno (b. 1548), who had systematically criticised Aristotelian physics in developing his cosmological theory based on the basis of the infinity of the creative power of God that the universe must necessarily be an organism characterised by infinite extension and composed of an infinite multiplicity of worlds, and speculated about a form of Christianity that could adapt to such a new paradigm by which he formulated his Averroistic view of the relation between philosophy and religion<sup>23</sup> in his *On the Infinite Universe and on the [Innumerable] Worlds*, was burned at the stake as a heretic, partially because he had criticised Aristotle and defended the heretical Copernican thesis that the earth revolves around the sun, but also partially because of his criticism against Christian

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<sup>23</sup> In his *Fasl al-Maqal (The Decisive Treatise)* and *Kasyfun Manahij (The Exposition of Religious Arguments)*, Averroes espoused the view on the relation between philosophy and religion in which religion is considered as a means to instruct and govern ignorant people, whereas philosophy as the discipline of the elect who are able to behave themselves and govern others. And thus he categorised three ways to discover the truth: demonstrative; dialectical; and rhetorical. See Ibn Rushd, *Faith and Reason in Islam*, trans. Ibrahim Najjar (Oxford: Oneworld, 2004).

ethics in his moral satire, *The Expulsion of the Triumphant*. In 1601 died the Danish astronomer Tycho Brahe (b. 1546), who in 1572 had observed a brilliant new star—a *super nova*—and calculated that it had to be beyond the moon, thus defeating the then still prevailing Aristotelian claim that no change occurred in the regions of the extraterrestrial or celestial (“quintessential”) bodies and spheres, and who had attempted a compromise between the Ptolemaic and the Copernican worldviews by letting the earth rest in the middle of the universe, but having the other planets revolve around the sun and accompany it on its revolutions around the earth. And in 1605: Francis Bacon published his seminal philosophical work *The Advancement of Learning* which showed a distrust of traditional learning, and proposed a new science of observation and experiment as to replace the traditional Aristotelian science.

## 2.2 A Jesuit Education

Descartes entered the Jesuit Collège Royal at La Flèche in Anjou which was established by the Jesuits under the auspices of King Henry IV,<sup>24</sup> most probably in 1607, when he was eleven years old, and he left the school at the end of philosophy cycle in 1615, when he was nineteen. This is the period between the birth of the greatest Dutch painter Rembrandt Harmensz van Rijn (1606-1669) and the death of the greatest English dramatist William Shakespeare (1564-1616). The method of instruction and the curriculum of the schools in the seventeenth century was predominantly Aristotelianism; and the Jesuits when they

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<sup>24</sup> Henry IV was one of France’s most remarkable kings. After his conversion to Catholicism in 1593, and by means of the Edict of Nantes—a law promulgated by him in 1598 which granted a large measure of religious liberty to the Huguenots (the Calvinist French Protestants), and granted them full and equal civil and political rights with the Catholics, and the Edict also restored Catholicism in all areas where Catholic practise had been interrupted before—and successful economic policies, he had managed to restore France to order and prosperity in an amazingly short time. And then, in 1603, Henry invited the Jesuits to return to France after banishing them eight years before because one of them had attempted to assassinate him. And this time he not only invited them back but gave them the Palace of La Flèche, his birthplace and where he had grown up as a young boy, as to open a new Jesuits college at Paris and endowed it with funds and prize money. For more information see Desmond Clarke, *Descartes* (Cambridge: Cambridge University Press, 2006), 15-6; A.C. Grayling, *Descartes* (London: Pocket Books, 2006), 23-5; *Encyclopaedia Britannica Online*, <http://www.britannica.com/Ebchecked/topic/402718/Edict-of-Nantes>.

formalised their educational policies in their *Ratio Studiorum*<sup>25</sup> of 1586 which reads: ‘In logic, natural philosophy, ethics and metaphysics, Aristotle’s doctrine is to be followed.’ This of course reflected the instruction issued two decades earlier by Francis Borgia (1510-1572), the then head of the Jesuit order, in a memorandum stipulating that ‘[no one must] defend or teach anything against the axioms received by the philosophers, such as: there are only four causes, there are only four elements, there are only three principles of natural things, fire is hot and dry, air is humid and hot. Let no one defend such propositions as that natural agents act at a distance without a medium, contrary to the most common opinion of the philosophers and theologians... This is not just an admonition, but a teaching that we impose.’<sup>26</sup> But still the spirit of the college was intellectually more liberal than in most for the Jesuits not only teach the one-sided Aristotelianism of the thirteenth century, but the more varied variety of the sixteenth (DM, 114) and they are widely acclaimed with introducing many changes into schools that helped distinguish their curriculum from the monastic practises on which they had previously been modelled (Clarke 2006, 24). The Jesuits would have trained their students in diction, theatre, music, dance, fencing, equitation, meteorology, hydrography, geography, mechanics, surveying, watch-making, optics, and military architecture; and even more the students were taught how to be a gentleman, such as good manners, savoir faire, how to greet, to stand, to talk, to cast one’s eyes, to take leave, how to make speeches to win friends and influence people or to insult them in a gentlemanly way, and how to carry on disputations, which the goal was the formation of the will (Watson 2007, 72-3).

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<sup>25</sup> *Ratio atque Institutio Studiorum Societatis Jesu* (Method and System of the Studies of the Society of Jesus [Jesuit]).

<sup>26</sup> Quoted in A.C. Grayling, *Descartes* (London: Pocket Books, 2006), and here adapted. The concepts given are all Aristotelian.

During his first five years at La Flèche, Descartes, and so with the rest of the students, studied (classical) languages and humanities, beginning with grammar and ending with rhetoric, and this including mythology, history, eloquence, poetry, and theology (DM, 17-23). All the courses were taught in Latin, and student work, oral and written, was in Latin. It is interesting to note that the classical texts that were given to the students were not in full, but always in the form of extracts since most of the texts contain the views that were contradictory to the Church doctrines (Gaukroger 1995, 48-9). During his years in the school Descartes also read the Latin poets such as Ovid, Seneca, Virgil, Horace, Cicero, and Ausonius (Watson 2007, 72). After his five years of studying letters was over, Descartes studied logic and moral in his sixth year, science and mathematics in the seventh year, and, in the eight year, metaphysics. From his education at La Flèche, Descartes must have acquainted with religious controversies and theological debates of the time. He studied Aristotle and Aquinas in his course on metaphysics, where the former were taught on the basis of detailed commentaries by the latter and theological doctrines were followed closely (Gaukroger 1995, 52; Gillespie 2008, 174). Philosophy was also included in the curriculum, but the teachings were based mostly on commentaries on selective authors and the teachers were required to attend advanced courses in theology and provided the evidence of their faith in Christian orthodoxy (Gaukroger 1995, 52). He also studied Suarez and Lessius in moral philosophy, and through Suarez he became familiar with Augustine, the scholastics John Scotus Erigena, Anselm, Bonaventure, and the nominalist Ockham, Robert Holcot, Marsilius of Inghen, Gabriel Biel, Gerson, Peter d'Ailly, and Andreas of Newcastle (Gillespie 2008, 174). And he also knew the mathematical work of the nominalist Nicholas of Oresme, the scientific works of Nicholas of Cusa, and at least the medical works of Francisco Sanchez (Gillespie 2008, 174).



Before going further, it is interesting to note the significant events that occurred during the years that Descartes attended La Flèche. Firstly, in 1609, Kepler, the sole beneficiary of the observational data—the most accurate possible before the invention of the telescope and its improvement and application to astronomy—of Tycho Brahe, had published the *The New Astronomy, Treated Aetiologically, or A Celestial Physics, Derived from the Commentaries on the Movements of the Star Mars according to the Observations of the Noble Tycho Brahe*, thus making the transition from the axiom of the perfectly circular motion of the planets to a theory of elliptical motion by formulating his first two laws of planetary motion, that is, that the planets move in elliptical orbits with the sun in one focus and that the radius vector from the sun to a planet sweeps out equal areas in equal times. Secondly, the assassination of King Henry IV, the founding monarch of La Flèche, on 14 May 1610 by a fanatical Catholic named François Ravallac and the subsequent funeral ceremonies held at the college where the dead King’s heart was ritually transferred to the College—as the King had decreed earlier that after his death and that of the queen, their hearts should be preserved in the choir of the college chapel and that their portrait should be displayed there—on June 4 of that year, and the ceremonies held at the college on 6 June 1611 in commemorating the first anniversary of the occasion. In that connection there took place the recitation of a memorable sonnet about the death of the king and Galileo’s discovery of the moons of Jupiter: *Sonnet sur la mort du Roi Henri le Grand, et sur la découverte de quelques nouvelles planètes, ou étoiles errantes autour de Jupiter, faite l’année d’icelle par Galilée Galilée, célèbre mathématicien du Grand-duc de Florence*.<sup>27</sup> This indicates that the sonnet’s author was well informed about recent

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<sup>27</sup> Sonnet on the Death of King Henry the Great, and on the Discovery of Some New Planets or Stars Revolving around Jupiter, Made Last Year by Galilei Galileo, Celebrated Mathematician of the Grand Duke of Florence.

spectacular developments in astronomy made by Galileo,<sup>28</sup> who had just published his discoveries, the *Sidereus nuncios* (The Starry Messenger), in that very same year (13 March, 1610), that recording, among others, his discovery of four satellites revolving around the planet Jupiter. This first observation of the four largest moons of Jupiter effectively destroyed the Ptolemaic notion that all heavenly bodies must orbit the earth, thereby lending credence to the alternative Copernican cosmology. This development was also the direct result of Galileo's vast improvement of the primitive telescope, by means of the use of special lenses, some slightly convex and some strongly concave, to insure both magnification and sharpness, to the point where it found suitable employment as an instrument of astronomical observation.

Descartes left La Flèche in September 1615, and went to the University of Poitiers in 21 May 1616 as to conclude his formal academic education by studying law—and medicine—there, and graduated on successive days, 9 and 10 November 1616, with *baccalauréat* (bachelor's degree) and a *licence en droit* (licentiate in civil and canon law). This took place one year before the death of the Spanish Schoolman Francisco Suárez (1548-1617), the author of the *Of the Metaphysical Disputations, in which both the Whole of Natural Theology is Systematically Treated and All Questions Pertaining to the Twelve Books of Aristotle[‘s] “Metaphysics” are Carefully Discussed, First Volume and Second Volume* (1597), which is the last great systematic compendium of Scholastic ontology. From now on I shall resume my account of Descartes' life in the light of eight main stages of Descartes philosophical life.

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<sup>28</sup> It has been suggested by some scholars that Descartes might have wrote this sonnet from the fact that he later interested in Galileo, and thus it became his first published work, at the age of fifteen, and according to Watson if he did not read Galileo in school, he certainly heard about him, for he must have known the poem that is on display in La Flèche at the time, Watson 2007, 73-4.

### 2.3 The First Stage of Philosophical Life

After his graduation, Descartes went to his father's place in Rennes to seriously contemplate and discuss with his father about what to do with his life. But he showed little interest to follow his father and brother into a legal career and later on, as did his father and brother, seeking a position in the *Parlement*. And it is possibly that he considered travelling abroad as a way of gathering experiences of practical affairs, and to visit some places as to learn directly what he heard earlier at school about scientific developments that were being reported from Italy, Denmark, the United Provinces, and from central Europe. His state of mind, up to 1618, was still uncertain about what path he should follow in life. Thus, he stayed at home a while, and kept himself occupied in a *façon honorable* by, among others, signing as godfather in both October and December of 1617 at the church in Sucé, near his father's country estate, Chavagne-en-Sucé. And finally he decided. In 1618, wanting, he says, to see the world of practical affairs and to learn from the great book of the world (DM, 23), he embarked his journey to the United Provinces to join at his own expense an army led by Maurice of Nassau, the Prince of Orange, and son of William the Silent. It was a travelling rather than a military undertaking, and he was not involved in real military action. Descartes arrived initially at Breda in the summer of 1618. Here he encountered Isaac Beeckman (1588-1637), the respected Dutch mathematician, on November 10, 1618, as has been recorded by Beeckman in his journal (Clarke 2006, 42). At this point of historical fact, Descartes' early philosophical career was about to begin. Beeckman was both a doctor of medicine from the University of Caen and the headmaster of the Latin School at Dordrecht. He had also known—and had done some experiments with—Willebrord Snellius (1591-1626), the Dutch mathematician and physicist, who had just

achieved in the same year his breakthrough on the formulation of the exact law of the refraction of light. The encounter between Descartes and Beeckman had immediately developed into an affectionate acquaintance and close intellectual co-operation between November 1618 and April 1619 for both of them were deeply interested in matters of the intersection of mathematics, physics and philosophy—which called physico-mathematica (DM, 116). Descartes would praise Beeckman for having initially aroused him from his intellectual slumber and awakened his interest in philosophical questions (CSMK, 4), and thus he dedicated to him a small Latin treatise on music, namely, the *Compendium musicae* (Compendium of Music), which he completed and sent it as a gift to Beeckman on December 31, 1618.<sup>29</sup> So this was his first work, which now generally recognise as a solid contribution to the musical theory of the seventeenth century, and it has a profound influence on the musical thought of the eighteenth century French composer Jean-Philippe Rameau (1683-1764) where he found in it the point of departure for his reflections on the foundations of harmony. But the book was remained unpublished during the lifetime of Descartes, and it was firstly published in Utrecht in 1650, the year of his death.

As has been noted before, 1618 was the year of the outbreak of the Thirty Years War in Europe—the war that lasted almost all the rest of Descartes’ life. So the young Descartes took full advantage of the war as to accomplish his earlier plan of ‘travelling, seeing courts and armies, associating with people of diverse temperaments and circumstances, gathering various experiences, testing himself in the encounters that fortune offered him and everywhere engaging in such reflection on the things that presented themselves that he was able to derive some profit therefrom’ (DM, 23). And thus on 29

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<sup>29</sup> See his letter to Beeckman on 24 January 1619, Rene Descartes, *The Philosophical Writings of Descartes, Vol. III, The Correspondence*, trans. John Cottingham, Robert Stoothoff, Dugald Murdoch, Anthony Kenny, (Cambridge: Cambridge University Press, 1995), 1.

April 1619 he set out on a voyage to Denmark, then to Poland, Hungary, Austria, Bohemia, and, finally, Germany.

His only reason for travelling to Bohemia might be that it was a renowned centre among the artists, philosophers, and scientists in the European continent. During the reign of the emperor Rudolf II (1552-1612),<sup>30</sup> Prague had turned into a prominent centre of culture and the arts, an international centre for the new sciences, a haven for those interested in mystical, hermetic, or astrological studies, a research centre for those interested in scientific developments, and an oasis of religious toleration in Europe (Clarke 2006, 52-3). For example, when the famous Danish astronomer Tycho Brahe (1546-1601) was forced to leave Denmark in 1597, he found a welcoming refuge at the royal court at Prague. Johannes Kepler (1571-1630) succeeded Brahe as royal astronomer at Prague in 1601, having spent almost one year previously as his assistant. During his research in Prague, Kepler published the *Astronomia nova* (New Astronomy) (1609), and the *Harmonices mundi* (*Harmony of the World*) (1619), which made public for the first time his three laws of planetary motion, that is, that squares of the periods of the revolutions of all the planets are proportional to the cubes of their mean distances from the sun (but retaining the astrological notion of an inner relationship between the planets expressing the “music of the spheres”). A Dutch physicist and friend of Beeckman, Willebrord Snellius, visited during the winter of 1599-1600. Michael Maier (1568-1622), a follower of Paracelsus (1493-1541) a German-Swiss physician and alchemist who had mixed applied chemistry, medicine, and mystical philosophy from Neoplatonism and from various alchemical and astrological sources, was physician to the emperor and a consultant on a wide range of

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<sup>30</sup> Rudolf II of Austria, Holy Roman emperor from 1576-1612, had moved the imperial court from Vienna to Prague, where he was crowned in the Cathedral of St. Vitus, Prague, in 1575. He was the greatest patron of arts and sciences, and regarded as one who helped cultivate the Scientific Revolution.

mystical, alchemical, and magical questions. During Rudolf's reign, the court welcomed a noted English alchemist and consultant to Queen Elizabeth I, John Dee (1527-1608), and his travelling companion and principal scribe, Edward Kelley. The royal visitors also included Francisco Pucci (1543-1597), an Italian philosopher and humanist who was executed and burned as a heretic by the Roman Inquisition, and Giordano Bruno (1548-1600), an Italian Dominican friar, philosopher, astronomer, and mathematician who suffered the same fate at the Campo de' Fiori, Rome.

The liberal intellectual climate in Prague was a perfect reflection of the emergence of the new sciences in the late sixteenth century for it seemed to many scholars that for some decades Aristotelianism and scholastic philosophy had been stagnant, sterile, dead, irrelevant, and did not lead to new knowledge. The response to this pervasive intellectual effete-ness emerged in two forms: religious, and philosophical (Clarke 2006, 54). The religious response was the challenge of the Reformation to return to a form of Christianity that was closer to the teachings of the Gospel, and to unshackle the church from the debilitating scholasticism that it had adopted as its official language; while the philosophical response was an equally radical search for new categories and new sciences that would put its practitioners in touch with wide range of powers and natural forces and, through them, with the ultimate source of these occult powers, God (Clarke 2006, 54). The philosophical revolution was supported by many of the same people who demanded religious renewal, but it was not by any means an exclusively Protestant movement. This new intellectual movement promoted the freedom of thought and toleration. This became evident from the fact that profound interest has been exhibited in Neoplatonism, cabalistic literature, alchemy, astrology, and various kinds of magic and sorcery, while countless

writers and practitioners of magical arts has professed their hopes and ambitious aspirations to discover the secrets of nature, and thereby opening up a whole new era for mankind. The first proponents of this new perspective on nature and its occult powers included Giovanni Pico della Mirandola (1463-1494) and Marsilio Ficino (1433-1499) in Florence, Johannes Reuchlin (1455-1522) in Germany, and the Venetian friar Francesco Giorgi (1466-1540). Although these authors varied in their identification with different forms of magic, they were united in their respect for mystical sources and Neoplatonist studies, which provided the social pressure required to challenge the established learning of the schools and to motivate the kind of mathematical work that was required by later scholars such as Brahe and Kepler (Clarke 2006, 54). Descartes was vaguely aware of this undercurrent of ideas and wished to become more informed about it.

His first direct acquaintance with the work and influence of Cornelius Agrippa (1486-1535) and John Battista della Porta (c. 1550-1615), and with the new art of memory allegedly discovered by Ramon Lull, occurred in 1619 immediately prior to his travels in central Europe. He wrote to Beeckman (26 March 1619) that he wished to construct ‘not a Lullian *Brief Art*, but a completely new science by which all questions that can be raised about any kind of quantity, either continuous or discrete, may be solved by a general method’. He mentioned Lull again one month later, on 29 April 1619: ‘The day before yesterday I met a learned man at an inn in Dordrecht with whom I discussed Lull’s *Brief art*’. Since he had no access to the books required as to check the theories of Lull and Agrippa, he asked Beeckman to investigate whether they provided a key to all knowledge, as they claimed. Descartes’ evaluation of the merits of Lull eighteen years later, in the *Discourse*, is entirely negative: ‘I notice that, in the case of logic, its syllogisms and most of

its other rules are more useful for explaining to someone else what one already knows than for learning them or even, in the Lullian arts, for speaking uncritically about things that one does not know' (DM, 33). However, in 1619 his knowledge of the new sciences was confined to what he had learned in the limited curriculum at La Flèche—which was almost nothing—and he may have been interested to learn about Lull's "art" and its possible adaptation as a general method of discovering truths. At this stage, Descartes was also curious about the Protestant brotherhood of Rosy Cross in Germany. Members of this fraternity claim to have certain magical powers, secret knowledge of nature, and can speak the languages of the countries they visited without learning them from books or otherwise. Some scholars suggest that Descartes might have read the Rosicrucian literature and was influenced by reading them for there is a parallel between Descartes' goals and rules for life with those in the Rosicrucian texts (Watson 2007, 98). And on his return to Paris in 1623, Descartes was suspected of having met members of the Rosy Cross or even joined their secret fellowship while travelling in Germany. This rumour surprised him and he responded by making himself visible to everyone, especially to his friends.

#### **2.4 The Second Stage of Philosophical Life**

Descartes eventually set sail for Copenhagen on 29 April 1619, and stayed there up to July of that year (Clarke 2006, 421), and then he travelled overland through Germany during the initial skirmishes of the Thirty Years' War. Having arrived in Germany, he travelled to Frankfurt am Main in order to attend the coronation of King Ferdinand of Bohemia (from 29 June 1617 to 22 August 1619) as the (elected) *Kaiser* Ferdinand II of the Holy Roman Empire of the German nation (28 August 1619).



In Germany Descartes was in the service of a Catholic army of Duke Maximilian I of Bavaria, an ally of the emperor. While he was returning to Bavaria, Descartes was detained by the bad weather of the beginning winter, and he billeted perhaps somewhere in the vicinity of Ulm, a well-known centre of mathematical studies—and that may be he would want to meet the great Rosicrucian mathematician Johannes Faulhaber who lived there.<sup>31</sup> On 10 November 1619 there occurred a significant event, which changed the course of his life. This occasion marked the second stage of his philosophical development. Descartes claimed that while he was staying in a *poêle*, or stove-heated room, doing an intense philosophical meditation, he had some intellectual epiphany, a vision of a scientific and philosophical method, in which he discovered the foundations of the *scientiae mirabilis* (wonderful science), and while asleep at night Descartes had a sequence of three extraordinary dreams which so astonished him that he intermittently praying, reflecting, interpreting, and wrote them down in his *Cogitationes privatae*,<sup>32</sup> a notebook which he subsequently carried wherever he went.

Firstly, Descartes dreamt that he was walking along a road toward a definite place, confronted by phantoms that terrified him, and that he was forced to go left rather than right. When he tried to straighten up, a great gust of wind, like a whirlwind, spun him around on his left foot three or four times. He then saw a college gate open ahead of him, and he entered it to seek sanctuary and relief. He tried to get to the college chapel, so that he could pray for God's forgiveness for his sins. As he was pushed violently by the wind, he noticed someone in the college courtyard addressed him by name in a friendly and

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<sup>31</sup> There is some suggestion in Faulhaber's letters that Descartes was there. See Richard Watson 2007, 93.

<sup>32</sup> Descartes 1969, 179-88; see also, Descartes 1994, 119-21; Clarke 2006, 59-60; Watson 2007, 110-13.

helpful manner and politely told him that if he wished to, he should go find Monsieur N who had something to give him, something that looked like a melon from a foreign land. What was more surprising to him was that while he was being constantly buffeted by the wind and finally knocked down, those who spoke with him were all straight and steady on their feet, unaffected by the storm. Then Descartes awoke and found that he had a real pain on his side, and he thought the whole experience might be the work of some evil genius or evil spirit who was trying to seduce him, and the melon as the tranquillity of purely human solitude.

Having lain awake for a while, Descartes fell asleep again and almost immediately had a second dream in which he was frightened by a noise like a clap of thunder. He immediately woke up terrified, and he saw sparks of fire scattered about the room. He had experienced this phenomenon before, and he soon calmed down and fell asleep again. He later interpreted this dream as “the spirit of truth” or “the spirit of God” descending to take possession of him. The fear of this dream signified his remorse of conscience for the sins of his past life.

Within a short time, however, he had a third dream—a peaceful dream this time, with nothing frightening like the first two. He dreamt that he found two books on his table, a dictionary and a collection of poetry entitled *An Anthology of All the Ancient Latin Poets*. He interpreted the dictionary as representing the sum of the sciences, and the anthology of poetry as representing the union of philosophy and wisdom. Curious to read something from it, he opened it at random and was confronted with a verse: ‘*Quod vitae sectabor*

*iter?*' (What path shall I follow in life?).<sup>33</sup> At the same time someone whom he did not recognise recommended him a verse from the same text, which began with the words: '*Est & Non*' (It is, and it is not). This was construed as the excellent advice of a wise person, or even of moral theology. So poetic enthusiasm and imagination were more insightful than philosophic reason.

And then, when he fully awoke at last, Descartes went on to interpret his dreams in full. The first and the second dreams represented Descartes' past life which deviated from the true path, and the third dream, was about his future, of how the rest of his life would go, after the spirit of God had vanquished the evil genius. In other words, he interpreted the dreams as a divine revelation bestowing a sense of philosophical mission on his life. For he understood the question posed as concerning what ought to be the occupation of his life, and the answer given as being that he ought to cultivate his natural light of reason in that he would pursue truth and avoid falsity in the human and profane sciences (DM, 120). Hence, in conjunction with his dreams, he made a vow to Our Lady of Loreto to make a pilgrimage to her shrine, which he later did most probably during his travel to Italy from September 1623 to May 1625—for Italy had been the cradle of the Renaissance, and figures of the Enlightenment from Descartes to Goethe familiarised themselves with its culture. In short, it is appropriate to say that this event shows the irrational roots of Descartes' project of establishing the rational foundations of knowledge.

Descartes travelled quite a good deal in 1620s—Germany, Holland, backed in France from 1622-1623, and to Italy via Basel and Zurich in 1623 and returned through the

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<sup>33</sup> It was the verse from Ausonius, '*Ode VII*', in the said anthology. Descartes had read this anthology while he was at La Flèche. See Descartes 1994, 120.

Suse Pass (Nürnberg, Germany) in May 1625. This caused him to miss an academic scandal in Paris, albeit its great importance in his later philosophical development. For one public disputation against the validity of traditional learning was planned on 24-25 August 1624, where three revolutionary thinkers, Jean Bitault or Bitaud of Saintonge, Antoine de Villon or Billon, known as the soldier philosopher, and Etienne de Clave, a physician and chemist, organised a debate in a hall in the city which they proposed to present their fourteen atomistic theses against Aristotelian-scholastic philosophy. A large crowd, estimated at eight or nine hundred, turned up for the discussion. But before they even began, however, the meeting was banned, at the instigation of the Sorbonne (one of the names applied for the Faculty of Theology at the University of Paris), and on 2 September the organisers were exiled from the jurisdiction of Paris (Lynn Thorndike 1955). And on 4 September, Paris *Parlement* issued a decree: ‘It is forbidden to everyone, on pain of their lives, to hold or to teach any maxims contrary to the ancient, approved authors, or to engage in any disputation apart from those that are approved by the doctors of the Faculty of Theology [of the University of Paris]...’<sup>34</sup> This summary condemnation set a pattern for the religious authority in obliterating the anti-Aristotelian ideas during the subsequent decades.<sup>35</sup> And it was in accord with the repressive measures adopted by the Council of Trent in its combative Counter-Reformation, included a vigilant watch over anything that was said or published which might challenge the traditional teaching of the church, where the Council promulgated a decree on 8 April 1546 that runs, ‘no one may print or have printed any books on sacred subjects without the name of the author, nor in future sell them or even keep them in their possession unless they have first been examined and approved

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<sup>34</sup> Quoted in Clarke 2006, 71, ff. 7.

<sup>35</sup> For more information on the religious censorship and persecution in the early seventeenth century France, see Lynn Thorndike 1955.

by the local ordinary [that is, the bishop or religious superior], under pain of anathema and fine.’<sup>36</sup> Descartes must have heard about this event in detail on his return to Paris.

## 2.5 The Third Stage of Philosophical Life

Descartes spent the years of 1625 to 1628 in France, with a base in Paris, and involved in various literary and scholarly circles. In this period, he befriended his ex-schoolmate at La Flèche, Marin Mersenne (1588-1648), a Franciscan friar and scholar, who had been his philosophical and scientific conduit by providing him for almost twenty years with reliable intellectual contacts and handled all of his correspondents. But it must be noted that Mersenne was one of the religious scholars or priests who supported the said Paris *parlement’s* decree on 4 September 1624. Indeed, he was motivated by the condemnation of the Italian priest Lucilio Vanini (1585-1619) to move to Paris from Nevers in 1619 as to join forces with the church’s campaign against the libertines<sup>37</sup> and the atheists. Vanini had been charged at Toulouse with atheism, blasphemy, and ‘other crimes’ (Clarke 2006, 72). In passing, it is interesting to note one of his views that can be found in his writings that says, “there must be a Necessary Being as the ground of existence for contingent beings, and that this being must further be an Absolute Being capable of resolving all contradictions within itself, since the universe is full of contradictions requiring resolution’.<sup>38</sup> Definitely, we could not consider such view as atheism, since it believed in the existence of the Necessary Being or the Absolute being, that is God, but unfortunately it did not satisfy the orthodox belief that was established by the church. Thus, he was

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<sup>36</sup> Quoted in Clarke 2006, 71.

<sup>37</sup> We should pause here to define what was referred to by the term libertine in the context of seventeenth century France for the term has varied meanings in different periods. As to the seventeenth century, it meant: essentially indifference to religion, and more specifically religious incredulity, and all the manifestations of religious doubt and of scepticism. For more detailed discussion on the libertine crisis in the seventeenth century France, see Philip George Naserius, “Libertinage in France in the Seventeenth Century,” *The Journal of Religion*, Vol. 11, No. 1 (1931), 30-39.

<sup>38</sup> Quoted in Grayling 2006, 120-1.

condemned whatsoever. And the Toulouse *parlement* sentenced him on 9 February 1619, as follows: ‘...that the public executioner should cut out his tongue, strangle him, and then burn him at the stake to which he is tied and scatter his ashes in the wind.’<sup>39</sup> And the sentence was executed on that very minute the verdict was reached, when he was thirty-four years old. The religious persecution on the thinkers who challenged the scholastic philosophy and Aristotelianism did not stop with Vanini’s execution, rather it was the beginning; it was followed by more than a dozen of heretics were burned alive in France during Descartes’ lifetime. For example, the deist Jean Fontanier, who taught mystic doctrines he had learned while travelling in the East, was burned in Paris in 1622, for being an atheist. But Mersenne himself much more interested in combating libertine ideas and atheism by the use of arguments. In the course of his unrelenting devotion to the anti-libertine cause he published three books, all of them in a huge volumes: *Important Questions about Genesis, with a correct Explanation of the Text; in this volume, Atheists and Deists are combated and Conquered* appeared in 1623; *The Impiety of Deists* published in 1624, in two volume book of almost 1,350 pages; and, in 1625, Mersenne published *The Truth of the Sciences, against Sceptics and Pyrrhonists*, in which he estimated that there were fifty thousand atheists in Paris (at that time).

During his stay in Paris Descartes also became friend with some French literary and scientific figures who gathered around Mersenne and in various *salons* such as: the writer Jean Louis Guez de Balzac (1597-1654) whom he honoured for his mastery of ancient art of eloquence and of his clearness and precision in his prose writings, and his sincerity and courage in commending and reproaching the mighty for their virtues and vices; the mathematician Jean-Baptiste Morin (1583-1656), and the Oratorian priest Guillaume

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<sup>39</sup> Quoted in Clarke 2006, 73.

Gibieuf (1583-1650), with whom he discussed about the motion of the earth, and later on Gibieuf had offered him some theological supports that he needed when faced with challenges about his religious orthodoxy (Clarke 2006, 82-3).

There was a significant event during this Paris period which indicates the third development in Descartes' philosophic life: one day in autumn 1627, he was invited to a meeting, with Mersenne and Étienne de Villebressieu, the royal engineer and physician, at the residence of the Papal Nuncio (diplomatic representative) to Paris, Guido Bagni. This was no ordinary meeting for they had met to hear a lecture by Sieur de Chandoux a famous doctor-chemist who was to be executed for counterfeiting in 1631. Chandoux's lecture was aimed principally at rebutting the Aristotelian philosophy, and then proposed to replace it with a novel system of philosophy of his own. Having been asked by the Cardinal Bérulle, the founder of the Oratorical colleges and the author of the *Discourse on the State and the Grandeur of Jesus* (1623), about his opinion on the lecture, Descartes made a speech which began by praising Chandoux's eloquence and his criticism of Scholastic philosophy and Aristotelian science. But he was disappointed that Chandoux replaced truth with probability since he believed that knowledge must be founded not on probability, but on certainty. Then the company asked him whether there is any infallible method by which we could arrive at certain knowledge and philosophical questions could be resolved. Descartes replied that he was working on such a method. And thus, Cardinal Bérulle, who was so impressed by his intellectual rigour, made Descartes promise, in a private conversation afterwards, to devote himself to the reformation of philosophy.

## 2.6 The Fourth Stage of Philosophical Life

Descartes wrote a work on methodology called *Rules for the Direction of the Mind* in 1628 to 1629. As a matter of historical fact, this is the period in which lies the fourth stage of his philosophical life. And as also a matter of historical fact, this work was drafted repeatedly at various time and then left unfinished and was published only posthumously in 1701. Although the *Rules* would remain fragment, it however prefigured many of Descartes' basic philosophical concerns especially the methodological aspects of his thought in which lies the hope of discovering a single method by which the truth in sciences could be discovered (Williams 1978, 16; Clarke 2006, 86). This hope was so ambitious for a young philosopher like Descartes. But it reflected the greatest concern of his day, i.e. to find a method, to which most thinkers, including Francis Bacon earlier in England, had ventured in finding a single, infallible way of discovering the truth about things by which they can help the advancement of knowledge. Thus it can be suggested that the *Rules* should be understood in the context of Bacon's *New Organon* (1620) in which he introduced a new method of induction in studying and interpreting natural phenomena. In this connection, Descartes can be seen as ventured on a project to construct a method that could compete in novelty and generality with Bacon's ambitions in the *New Organon*.

In late 1628, when he was thirty-two years old, Descartes went to the United Provinces for the second time in his life, and he lived there for almost twenty years, with only a few brief interruptions, until 1649. During his stay there Descartes led a reclusive and hidden life and changed his address frequently,<sup>40</sup> and he was very fanatic about

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<sup>40</sup> During his United Provinces period, Descartes lived in several places, such as: Franeker (1629); Amsterdam (1630); Leiden (May/June 1630); Amsterdam (1630-1632); and Deventer (1632-1634); Amsterdam (1634-1635); Utrecht (1635-1636); Leiden (1636); etc.



concealing his exact location even from trusted friends for he wished to enjoy a peaceful life that he believed was necessary for his intellectual work. The reason why he chose the United Provinces as his sanctuary might be that in the early seventeenth century it was the most cosmopolitan city in Europe with—its successful commercial centre, wealthy, busy, and populous, and—its comparatively liberal atmosphere as Europe’s leading country for the arts and sciences (Grayling 2006, 143-6). During this period many universities and schools had sprung up in its rapidly expanding towns, and thus Descartes thought that he could further his work there. Descartes was visiting universities in the United Provinces, and thus he had gained some scholarly friends. On 26 April 1629 he registered at the University of Franeker as ‘René des Cartes, Frenchman, Philosopher’. In June 1630 Descartes registered at the University of Leiden as ‘R. Descartes, mathematician’. There he became friend with Jacob Golius (1596-1667), professor of Oriental languages and of mathematics. In 1631 to 1632 Descartes found the general solution to the problem of the Greek mathematician Pappus of Alexandria, which proposed by Golius, which later play a key role in the third essay of the *Discourse*, the *Geometry*. Golius also introduced Descartes to the Dutch poet and statesman Constantin Huygens (1596-1687), father of Christiaan (1629-1695), the physicist, mathematician, and astronomer who would be noted for his invention of the pendulum clock in 1656 and his wave theory of light (first publicised in 1678, but published in the *Traité de la lumière, Treatise on Light* of 1690).

## **2.7 The Fifth Stage of Philosophical Life**

In 1629, Descartes was told about the phenomenon of parhelia, or false suns, which were observed by the Jesuit priest Father Scheiner near Rome, on 20 March. When he was asked

for his explanation of the phenomenon, he turned his intellectual enthusiasm on the subject and he developed the conception of a treatise on meteorological questions, and, within a short time he extended the scope of his project to all natural phenomena, that is all of physics, which was to be called *Le Traité du Monde*, or *Treatise on the World*. This treatise marks the fifth stage of his philosophical development. In July 1633 Descartes was ready to publish it, but by the end of November, however, he heard about the Roman Inquisition's condemnation of Galileo for teaching the movement of the earth,<sup>41</sup> and then he changed his mind and decided to suppress his *Treatise*. He incorporated some of its material in later works such as in the fifth part of the *Discourse on the Method* (1637) and in the part two to four of the *Principles of Philosophy* (1644), and the manuscript of the *Treatise* partly survives in the form of two works, the *Treatise on Light* and the *Treatise on Man*, both in French, which were published only after his death in 1664. Some material that would have unified these two parts is missing, and a third treatise, on the soul, which is promised in the *Treatise on Man*, has never been found and was probably never written. Apart from its endorsement of Galileo's astronomy where Descartes himself had explained the doctrine of the movement of the earth, the *Treatise* also contained radical suggestions about human knowledge, scientific explanation, and the extent to which human and animal behaviour could be explained without any of the "souls" on which philosophers traditionally relied (Clarke 2006, 124). Descartes' fear of censure by the Church, and its distorting effect on his thought, is understandable on the ground of his fear of material, personal and scholarly

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<sup>41</sup> In 1632 Galileo published his *Dialogue Concerning the Two Chief World Systems*, in which he presented evidence for the superiority of the Copernican heliocentric worldview over the Aristotelian-Ptolemy geocentric worldview, and in which he argued that the earth moves both by rotating on its axis and by revolving around the sun. The *Dialogue* had not only ignited the scientific circle, even more than that it had ignited the theological circles too. Thus in the summer of 1633 Galileo was arrested and condemned by the Roman Inquisition, and all copies of his *Dialogue* available in Rome were burned. He was sentenced to be released into permanent house arrest in Siena for the remainder of his life on 22 June 1633 after he had been forced publicly to abjure his scientific views. The *Dialogue* remained on the *Index Romanus* until 1835. In an address to the Pontifical Academy of Sciences on 10 November 1979 Pope John Paul II admitted that Galileo had been imprudently opposed and had suffered unjustly because of the Church, even praising his religious attitude and his understanding of the relationship between religion and science. Furthermore, a 13-years investigation of the relationship between Galileo and the Church by that scholarly society would lead both to the preliminary report in 1984 that the scientist had been wrongfully condemned and to the final conclusion in 31 October 1992 that he had been right after all in adopting the Copernican cosmology as his own. Finally, Pope John Paul II stated that the theologians who had condemned Galileo had not adequately distinguished between the *Bible* and its interpretation. See George Heffernan in his *Interpretative Essay to Descartes'* 1994, p. 148.

criticism, and his fear of controversy about and rejection of his works as manuals of instruction in the schools—for a book that enlisted in the *Index Librorum Prohibitorum* was certainly would never get adopted as a textbook in the schools. And thus he has to think of the way to preserve and convey his result, while at the same time protecting himself from church censure.

## 2.8 The Sixth Stage of Philosophical Life

As we know now, Descartes never gave up his project after the Galileo debacle. Rather, the suppression of the *Treatise* led him to produce one of the seminal works in modern thought, the *Discourse on the Method* in 1637,<sup>42</sup> and which signifies his mature philosophical experiment at this sixth stage of his philosophical life. Thus an understanding of Galileo affair is prerequisite in understanding the context of the text of the *Discourse*. Originally, the *Discourse* was designed merely as a preface to the three scientific *Essays* on dioptric, meteorology, and geometry, which were a condensation or a summary of the *Treatise*. Therefore, if we wish to understand the *Discourse*, it is necessary to read together with the scientific essays for which it provided a preface. And yet it is obvious from its publishing history that the scientific essays were planned as the main text. The *Dioptric* deals with the principles of refractions and related matters, and containing a formulation, though Descartes discovered it independently, of what is now known as Snell's Law, while the *Meteorology* and the *Geometry* lay the general foundations for analytic geometry. The whole book was written in French rather than in Latin because: 'I am hoping that those who make use only of their totally pure natural reason will better judge my opinions than those

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<sup>42</sup> As to avoid misunderstanding I would like to clarify that this only refer to the text of the *Method* itself and not the three essays for which it provided a preface. And we shall learn more about it in a moment.

who believe only in the ancient books' (DM, 105); and it was written in a way that is comprehensible even to women (as he claimed in his letter to Vatier, on 22 February 1638, (CSMK, 86). The style is very lucid and elegant, and regarded as a masterpiece of French prose or literary writing, and has always been admired as a model of the expression of abstract thought in French.

The *Discourse*, on the one hand, expressed Descartes' individuality in a brilliant rhetorical manner where he claimed that he conducted his reason properly and searching for the truth in the sciences 'has never gone beyond trying to reform my own thoughts and building on a foundation that is totally my own' (DM, 31). But, on the other hand, it was not intended to teach the method but only to talk about it (CSMK, 53), and displayed its author not so much as an object of human interest, but rather as an example of the mind being rationally directed to the systematic discovery of truth (Williams 1978, 19), where he said, '... And, if, my work having been sufficiently pleasing to me, I am here letting you see the model of it, it is not for the reason that I would want to advise anyone to imitate it' (DM, 31)

## **2.9 The Seventh Stage of Philosophical Life**

The sophistication of this way of presenting his philosophical experiment is much further developed in his masterpiece, which characterises his mature philosophy in its seventh stage, the *Meditations on First Philosophy*, the first edition of which, together with the first six sets of *Objections and Responses*, was published in Paris on 28 August 1641. It was, unlike the book of 1637, written in Latin, and it addressed to and was meant to be read by,

because it can only be understood by, only a very few readers, that is: ‘...those people who will be able to and willing to meditate seriously with me and to lead the mind simultaneously away from the senses and away from all prejudices’ (MFP, 75). It was in this work that he expounded his epistemological project of finding the unshakable foundations of knowledge through his famous Method of Doubt—as I shall further develop in the Chapter 3. The *Meditations* proper consists of six intimately related sets of cogitations, and each set designated as a *Meditatio* (Meditation), entitled: (I) “Concerning the things that can be called into doubt”; (II) “Concerning the nature of human mind: that it be more known than [the] body”; (III) “Concerning God, that he exists”; (IV) “Concerning the true and the false”; (V) “Concerning the essence of material things; and again concerning God, that he exist”; and (VI) “Concerning the existence of material things, and the real distinction of the mind from the body”.

During the time between the completion of the manuscript and the publication of the *Meditations*, Descartes circulated his work among his friends, requesting comments, criticisms and suggestions for improvements. He even sent a copy of the manuscript to Mersenne and asked him to get even further reactions, preferably of distinguished theologians and philosophers. Indeed, he would be very glad if people put to him many objections, the strongest they can find, for he hoped that the truth will stand out all the better from them (in his letter to Mersenne, 28 January 1641, CSMK, 172). The *First Objections* were from a Catholic theologian, Johannes Caterus, who was also at the same time the pastor of the church of St. Laurens at Alkmaar (Holland). Descartes collected these objections himself as he aimed to impress schoolmen of the Sorbonne, particularly through the Jesuit Guillaume Gibieuf, who was one of the first members of the *Congrégation de*

*l'Oratoire*, and who had received his doctorate from the Sorbonne in 1611 and whose principal works were *Of the Liberty of God and of the Creature* (1630) and *The Life and the Grandeur of the Very Blessed Virgin* (1637). He then sent the *Meditations* and the first set of *Objections* and *Responses* to Mersenne, with instruction to gather other objections. The *Second Objections* came from various theologians and philosophers, including some of Mersenne's own. The *Third Objections* were by the English Philosopher Thomas Hobbes (1588-1679), who was in and out of Paris from 1640 to 1651 for his personal safety after the long dissolution of British Parliament in 1640, and the outbreak of the First English Civil War in 1642 and the Second Civil War in 1648 that would lead to the execution of King Charles I in 1649 and the declaration of a republic in England. Initially, it was not Descartes' idea to associate with the heretic and materialist Hobbes for it would be unlikely to help with the Sorbonne. Fortunately for Descartes, Hobbes was not sympathetic to the *Meditations*. Unfortunately, in term of philosophical exchange, it did not illustrate much, except truculent misunderstanding on Hobbes' part and impatience on Descartes'. The *Fourth Objections*, which were superior and the best of all (as Descartes himself thought), were from the French theologian and logician Antoine Arnauld, who was then only twenty-nine years old. At about the same time Arnauld, a Jansenist priest, would publish the controversial book *Traité de la fréquente Communion*, or *Treatise on Frequent Communion* (1643), which led to a long altercation with the Jesuits that forced him to live in hiding for twenty-five years. Mersenne went beyond his instructions for a second time in inviting comments from Pierre Gassendi (1592-1655), a prolix atomist and sensualist writer, whose writing amounted to a paragraph-by-paragraph commentary on the text of the *Meditations*. Descartes reacted very defensively, and later he responded to Descartes' *Responses* (in a rather sarcastic tone) with a yet vaster work, the *Metaphysical Disquisition or Doubts about*

*the Rejoinders to René Descartes' Metaphysics and [his] Responses* (1644), which Descartes held to be unworthy of a detailed reply (his Letter to Clerselier, 12 January 1646). Eventually both of them were reconciled, perhaps on Descartes' visit to France in 1647, and it was perhaps then in a dinner for Descartes, Gassendi and Hobbes hosted by Descartes' correspondent William Cavendish, Marquis of New Castle. The *Sixth Objections* were from various geometers, philosophers and theologians of Mersenne's circle. In the second edition of the *Meditations* (1642), all these objections were compiled by a *Seventh Objections* by the mathematician Pierre Bourdin (1595-1653), a professor at the Jesuit College in Paris, and represented Descartes' hopes to win the support of the Society of Jesus for his teachings. But the tone and content of Bourdin's reply very disappointed him that he wrote, and had published as an appendix to the second edition of the *Meditations*, a letter to another Jesuit, Father Dinet, who had been his instructor at La Flèche, as a damage control, chiefly pertaining to his reactions to Bourdin's objections, and mostly his concerns with the severe opposition against the Cartesian philosophy among the theologians, and even among the Protestants in Holland.

## **2.10 The Final Stage of Philosophical Life**

As to accomplish his ambition, that he had in mind for almost twenty years, to establish his philosophical experiment as an official Catholic teaching and, in doing so, to replace Aristotelian textbooks in the Jesuits schools, Descartes produced in 1644, the *Principia philosophiae* (*Principles of Philosophy*). Despite the fact that the work represents the final stage of his philosophical development, it also displays his comprehensive philosophical and scientific system that he envisaged as a university textbook which would rival the

traditional scholastic manuals usually based on the writings of Aristotle and of the scholastic theologians and philosophers such as the *Summa theologica* (ca. 1235) of Alexander of Hales (ca. 1185-1245), and the *Summa theologica* (1266-1273) of Thomas Aquinas (1225-1274). It has been designed in the form of a textbook, divided into four parts and subdivided into altogether five hundred and four articles, that is: (I) “On the Principles of Human Knowledge”; (II) “On the Principles of Material Things”; (III) “On the Visible World”; and (IV) “On the Earth”. It is noteworthy that the *Principles* contains a lot of material from the unpublished, because of unpublishable, *Traité du Monde*. And in the epistemic stance, the *Principles* offers a definition, which has been neglected in the *Discourse* and the *Meditations*, of the concepts of “clear and distinct ideas” (which shall be discussed further in Chapter 3).

Descartes dedicated the *Principles*, which he intended to replace Aristotelian textbook in the Jesuit (or Catholic) schools, to Princess Elizabeth of Bohemia, who was a Protestant. This remarkable woman, who was born at Heidelberg in 1618, was the daughter of King Frederick of Bohemia (The Winter King), who was crowned as King of Bohemia in November 1619 but lost the crown at the Battle of the White Mountain on 8 November 1620, and then lived in exile with his family in Holland until his death in 1632. Elizabeth was multilingual where she normally spoke French, knew English, German, Flemish, Italian and Latin, and had some interest in mathematics, astronomy and physics. Elizabeth was a devout Calvinist, but refused religious (or Protestant) dogmatism, that she read Descartes’ *Discourse* and *Meditations*, and wanted to meet the Catholic philosopher, which they had met in the Hague firstly in the autumn of 1642, and again in late April 1643. Throughout their correspondence, they exchanged friendly letters on various subjects, from



the philosophy of happiness of Seneca' *On the Happy Life* (A.D. 58-59)<sup>43</sup> to the political philosophy of Machiavelli's *The Prince* (1532).<sup>44</sup> One of the most important subjects that Elizabeth pursued in their correspondence was the classic problem of the relation of mind and body, and the nature and control of soul and passion in the body, which emerged as an important part of Descartes' philosophy. This discussion inspired him to write a treatise, which was the last of his works published in his lifetime, *The Passions of the Soul*, which was published in November 1649. The larger part of this work consists of a classification and description of the emotions, and the rest dealing with physiology, psychology, ethics and much more.

The *Passions*, however, was dedicated to Queen Christina of Sweden, who was also a Protestant, and to whom Descartes had earlier sent a manuscript of the work in November 1647. Christina was born in 1626, and had come to the throne in 1644, after years of regency, in succession to her father Gustavus Adolphus, who was killed at the battle of Lutzen in 1632 when she was only six. At this time she had the idea of making her court a centre of learning and culture, and assembled about her poets, grammarians, rhetoricians, philosophers, scholars, musicians, and architects. But she loved the theatre even more, and she hired the theatre architect Antonio Brunati to construct a theatre in the latest Italian style, with the latest technological specification, with machinery to transform the stage from a mountain landscape to a seashore, from a forest to a ballroom (Watson 2007, 273). Christina, who having corresponded with Descartes for about two years and read his *Principles*, was so impressed by his work that she asked him to come to her country as her private tutor in philosophy.

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<sup>43</sup> See their correspondence from 4 August 1645 to 15 September 1645, Descartes 1995, 256-6.

<sup>44</sup> See their correspondence from September 1646 to 29 November 1646, Descartes 1995, 304-5.

## 2.11 Death in Sweden

After a long hesitation and reluctance he said to Brasset that he had no desire to go to ‘the land of bears, rocks and ice’ (CSMK, 375). However, Descartes finally did leave on 1 September 1649, with a ship which was dispatched to pick up Vossius’s library of 20,000 volumes that the Queen had bought, and arrived in Stockholm on 1 October. About three months after his arrival, there were two initial audiences with Christina, and then she left him alone for six weeks. Descartes was lonely and ended up spending a miserable autumn during which he was engaged in mostly unphilosophical activities, and even an absurd task, where Christina insisted him to write verses to celebrate her birthday and the Peace of Westphalia, *La naissance de la paix*, to be performed in her brand new theatre. He was also required to draw up the statutes of the Swedish Academy of Arts and Sciences, which he did with assiduity, and that he proposed an interesting rule in the second article of the statutes that only natural-born Swede could be members of the Academy. At about this time Descartes had a plan in mind to leave, or in other words to return to his solitude, as soon as he could.<sup>45</sup> The Queen then returned, and took up philosophy lessons. Unfortunately for him, she required him to attend to her three times a week at 5 o’clock in the morning, which she did intentionally as she knew perfectly—from the French ambassador to Sweden, Hector-Pierre Chanut, who had earlier arranged his employment with the Queen—of his reputation of not rising up until 11 o’clock in the morning, and spending the earlier hours thinking, reading and writing in bed. The demand must of course severely disturbed his lifelong sleeping habit, and very quickly contracted pneumonia and died at 4 a.m. on 11 February 1650. According to legend his last words are alleged to have been: ‘*Ça mon âme, il faut partir*’ (Come, my soul, we have to go).

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<sup>45</sup> See his letter to Princess Elizabeth on 9 October 1649, and his letter to Bregy on 15 January 1650. Descartes 1995, 382-4.

He was buried in Stockholm, but later his corpse was transferred to France in 1666 and buried in Paris at the church of Sainte-Geneviève-du-Mont. At that time a royal order prohibited the Chancellor of the University of Paris from holding the eulogy that he prepared for the occasion of the philosopher's return to France for his image as an anti-scholastic and anti-religious force. This was the result of the condemnation of his books by the Congregation of the Holy Office in Rome in 1663. He escaped the official attention of the Roman censor during his lifetime as he took precautionary actions to suppress the publication of the *Treatise* and officially denied the motion of the earth, and also carefully avoided endorsing the Copernican system. But, unfortunately for his works, it was not the case after his death where in 1663 the Congregation of the Holy Office was persuaded to open a case against him by reports from two theological examiners, Father Stefano Spinola and Father Agostino Tartaglia (Clarke 2006, 414). Spinola reported that he had found five theses that could be easily deduced as inconsistent with the Catholic faith from two of Descartes' books that he read, *The Principles of Philosophy* and *The Passions of the Soul*. While Tartaglia, who had consulted the *Meditations* and the Latin edition of the *Discourse on the Method, Dioptrics and Meteors*, found a number of theses that he described as 'insufficiently safe' and 'not sufficiently consistent with sacred doctrine' (Clarke 2006, 414). Once these reports were submitted in September 1663, the Congregation of the Holy Office decided on 10 October that some of Descartes' works were dangerous to the Catholic faith, and the Congregation of the Index announced the decision which reads:

The following books of René Descartes are banned, until they are corrected:  
*First Philosophy, in which God's existence and the distinction of the human soul from the body is demonstrated. To which are added various objections of learned men, together with the author's replies.* Amsterdam, 1650.  
*Comments on a Certain Manifesto towards the end of 1654.*

*Letter to Father Dinet of the Society of Jesus, the Provincial Superior of the Province in France.*

*Letter to the very famous man, Gisbertus Voesius [sic].*

*The Passions of the Soul, a book written in French by the same author. Now made available in Latin to a wider world by H.D.M.I.V.L. Amsterdam, 1650.*

*Philosophical Works.*

By decree of 20 November 1663 (Index 1664, 393-4).

In 12 April 1791, a petition to move Descartes' carcass to the Panthéon was introduced to the Revolutionary National Assembly, but the project was not carried out because of political events that took place at that time. Finally he was reburied in the church of Saint-Germain-des-Prés, Paris, in 1819, where his tomb can be seen between those of two Benedictines (Williams 1978, 24). And his epitaph reads: 'To the memory of René Descartes, most famous for the praise of a better founded teaching and the sharpness of his mind, who, as the first since the studies of fine letters in Europe had been renovated, has vindicated and asserted the rights of human reason, while preserving the authority of the Christian faith. Now he is enjoying the vision of the truth, which he has uniquely honoured.'

## **2.12 Concluding Remarks**

From the story presented above, it is clear that Descartes had formed his philosophical thought while he was pursuing the life of a soldier (this fact reminds me of Wittgenstein more than three hundred years later). Descartes, of course, did not write in a vacuum. He was influenced, among others, by St. Augustine. And his philosophical experiment was intended as to replace the Aristotelian and scholastic philosophies that were pervasive throughout Europe. Descartes' philosophy represented a rejection not only of Aristotle and Aristotelianism, but also of the whole intellectual tradition based on authority. It can be

said without a doubt that this kind of anti-Aristotelian intellectual movement was seen as threatening. First and foremost: the universities. Since they had so long being the instrument of intellectual status quo, and that the whole universities curriculum were grounded in Aristotle. Politically speaking, the rise of anti-Aristotelian ideas was also threatening to society at large. As we have seen from one event that happened in August 1624, where a group of three thinkers who were to present their fourteen anti-Aristotelian theses was arrested. In this case, we have seen that the civil government, the university and the Church coming together to condemn those who would reject Aristotle. We cannot understand this authoritarian attitude unless we go beyond the writings of Descartes and try to penetrate into the broader intellectual life of the period in which the European people had experienced the religious wars of the sixteenth and seventeenth centuries. In this context, the new anti-Aristotelian philosophies seemed as dangerous to public life as the heresies of Luther and Calvin. In the case of Descartes, however, and as we have seen, he has escaped the persecution in his life time due, in part, to his own 'art of writings' and, in other part, to his relations with some politically influential friends.

Descartes presented to us a philosophical experiment of establishing the new foundations of knowledge based on the intellect. This philosophical experiment brought about the 'Age of Reason' in Europe, which was entirely dominated by the Cartesian rational spirit. It has played a significant role in destroying the old long tradition based on authority. It also allowed us to set aside history, tradition and authority, and gives everyone an equal right to their own opinions. It is to this intellectual movement that we owe our thanks for bringing forth the idea of intellectual freedom that the European people enjoy till now. There is no more religious authority or Church that has the arbitrary power to

encroach into one's thought. Now, as to fully understand Descartes' philosophical experiment, I shall proceed to the discussion on his views on the foundations of knowledge, within his broader philosophical system.