

CHAPTER 3

DESCARTES ON KNOWLEDGE AND ITS FOUNDATIONS

3.0 Introduction

Descartes' philosophical experiment made a new beginning in modern philosophy and placed the questions of what we know and how we know at the centre of the problem of epistemology. In the pursuit of his epistemological project—as to provide answers for both questions—Descartes took the task of finding foundations of knowledge. It is upon this altogether fundamental theme of the foundations of knowledge in the philosophical experiment of Descartes that I intend to dwell in this chapter, albeit within a compass that can do scant justice to all of its aspects and ramifications. The remainder of this chapter is organised as follows: Section One explains Descartes' conception of knowledge and his view on the foundations of knowledge; Section Two systematically develops the criteria of certainty that Descartes aspires in his project of epistemological foundation as can be elicited from the whole corpus of his philosophical writings; Section Three presents Descartes at work using methodical approach in accomplishing his epistemological project of finding a foundation of knowledge, by which he outlines four rules of method and four maxims of morals to which he adheres in the course of carrying out his project, and the method of doubt that he employs as an epistemic demolition tool in identifying unshakable epistemic foundation; in Section Four, the result of his epistemic demolition project which leads to the discovery of the new foundation of his system of knowledge is presented; and lastly, Section Five provides a brief conclusion to the chapter.

3.1 Descartes on the Foundations of Knowledge

In his attempt to embark on his project of epistemological foundation, Descartes has to define in exact and rigorous terms of what is meant by knowledge. In his *Rules*, Descartes defines knowledge (*scientia*) as “certain and evident cognition” and one has to ‘reject all such merely probable knowledge and make it a rule to believe only what is perfectly known and incapable of being doubted’ (HR I, 3). And again, ‘...no knowledge that can be rendered doubtful should be called science’ (HR I, 39). In his letter to Regius in 1640 he writes:

I distinguish the two as follows: there is conviction when there remains some reason which might lead us to doubt, but knowledge is conviction based on a reason so strong that it can never be shaken by any stronger reason (CSMK, 147).

And in his reply to the objection to the Second Meditation, he writes:

But since I see that you are still stuck fast in the doubts which I put forward in the First Meditation, and which I thought I had very carefully removed in the succeeding Meditations, I shall now expound for a second time the basis on which it seems to me that all human certainty can be founded.

First of all, as soon as we think that we correctly perceive something, we are spontaneously convinced that it is true. Now if this conviction is so firm that it is impossible for us ever to have any reason for doubting what we are convinced of, then there are no further questions for us to ask: we have everything that we could reasonably want. ... For the supposition which we are making here is of a conviction so firm that it is quite incapable of being destroyed; and such a conviction is clearly the same as the most perfect certainty. (AT 7, 144-45)

On reading of these passages (and others in the Rules 2 and 3) we can understand that Descartes was firmly convinced that knowledge is certain, evident, indubitable, infallible, and it was built on a rational foundation and not on opinion, guesswork or conjecture, however probable it is. And in this conception of knowledge, he also contrasts between

- S knows that P IF (i) P is true,
- (ii) S believes that P, and
- (iii) S is unshakably certain in believing
that P.⁴⁷

We could go on from this analysis to assume that in looking for certain belief, Descartes is looking for an absolutely certain proposition that once he believes it, then it logically constitutes true belief. Thus, we could also go on next to say that the foundations of knowledge that Descartes has in mind is certainty. And his epistemological project is certainly the quest for certainty. This aim can be seen from his *Meditations* where he puts it once in the second paragraph of the First Meditation, and repeatedly throughout his writings whenever he rejects any idea as uncertain or unreliable. In the first paragraph of his First Meditation it reads:

Already some years ago I have noticed how many false things I, going into my youth, had admitted as true and how dubious were whatever things I have afterwards built upon them, and therefore that once in my life all things are fundamentally to be demolished and that I have to begin again from the first foundations if I were to desire ever to stabilize something firm and lasting in the sciences. (MFP, 87)

And in the subsequent paragraph he goes on to say that:

Because reason already persuades me that assent is to be withheld no less accurately from the opinions that are not fully certain and indubitable than from the ones that are overtly false, rather will it suffice to reject all my opinions if I shall have found any reason for doubting in each one... But because—the foundations having been undermined—whatever has been built upon them will collapse spontaneously... (MFP, 89)

⁴⁷ I must confess that I do not suggest that the above attempt to reconstruct the proposition in language closer to Descartes to be entirely correct. And I am fully aware that it may be vain since many may think that it is not needed whereas others will not be convinced by my way of interpreting and reconstruct the proposition.

And he reinforces once again in the Second Meditation as to say, ‘I shall proceed further in this direction until I might cognize something certain, or—if nothing else—at least this itself for certain: that there is nothing certain... great things are also to be hoped for if I shall have found even something minimal that be certain and unshakable’ (MFP, 99). In passing, it should be noted that this epistemic certainty is psychological in character, and in the states of certainty Descartes says, ‘I think that I most evidently intuit with the eyes of the mind’ (MFP, 121), and that it followed from ‘the great light in the intellect’ (MFP, 161).

I have considered, up to this point, in the light of lengthy quotation from Descartes’ philosophical works, the conception of knowledge and the role of certainty as its epistemological foundations in his system of knowledge. Next, the question to be faced is about *truth* in Descartes’ epistemological project as to whether or not Descartes regards truth as one of his aims in his project.

I find the best answer for such question in the very title of two of his philosophical works: *Discourse on the Method of Conducting One’s Reason Well and of Seeking the Truth in the Sciences*; and *The Search for Truth*. While in the fourth part of the *Discourse* Descartes asserts:

...But, because I then desired to devote myself solely to the search for the truth, I thought that it was necessary that I were to do completely the contrary, and that I were to reject, as absolutely false, all that in which I could imagine the least doubt, in order to see whether there would remain, after that, something in my beliefs that were entirely indubitable. (DM, 51)

A similarly clear assertion occurs in the *Principles* where he says, ‘and since we are now only concerned with seeking the truth...’ (PP, 3). And, in the Third and Fifth Meditations, he even goes on to indicate the rule for establishing the truth. I shall not attempt now to describe the exact nature of such rule for I shall come back in a moment to this in Section Three. What is of interest now, however, is to unravel the riddle that arises from the interplay between truth, knowledge and certainty that appear persistently throughout Descartes’ writings. From the above quoted passages it is no doubt that Descartes’ epistemological project is centred on truth. But it is also no doubt, as has been demonstrated before, that Descartes’ epistemological project is the quest for certainty, and he seems to regard knowledge as certainty, or at least, certainty as the foundations of knowledge. In the light of these propositions we can go on to assume that the search for truth, which should be understood as the search for knowledge—from quite a minimum sense that in wanting the truth about something, we want to know about something—has turned into the search of certainty since the pursuit of certainty is the only possible way for the search for truth. Hence, we cannot fully understand Descartes if we break the connection between the search of certainty and the search for truth (Williams 1978, 200). No wonder therefore that the demand for certainty was very prominent throughout his writings as, for instance, he puts in the Rule 2 of the *Rules* that: ‘We should attend only to those objects of which our minds seem capable of having certain and indubitable cognition’ (HR I, 3).

Now, if Descartes is seeking after certainty, he must know the characteristics of certainty in order to recognise the real thing that he is looking for, and that not to make his project in vain. Thus, in Section Two, I expound six criteria of certainty that can be elicited

from his philosophical works. In Section Three, the rules of method in attaining certainty is illustrated and interpreted and, then, followed by an analysis of his Method of Doubt which is part of his methodical approach, or an instrument, in investigation of knowledge that makes way for a systematic vindication of knowledge. In the Forth Section, I discuss about the Cogito as the result of methodical approach that he employs in his epistemological investigation.

3.2 The Criteria of Certainty

It should be noted from the outset that Descartes does not systematically characterise the criteria of certainty, but from the perusal of his writings I shall suggest that there are six properties that certainty must satisfy as he intermittently specifies throughout his works, that is: (1) it must be a *first principle*, a first item of knowledge; (2) it should be a *clear and distinct ideas*; (3) it must be *the most certain*; (4) it should be *the easiest to become acquainted with*; (5) it should be *the simplest*; and (6) it should be *particular*.

Now I will do well to attempt to explicate these properties as the criteria of [Descartes'] certainty in a systematic manner in terms of their proper context and explain their virtue. The *first* criterion is that it must be a first principle, a first item of knowledge. In *The Search for Truth*, Descartes says, 'Go on, then, Polyander, and show him how far we can get with good sense, and also what conclusions can be derived from our first principle' (CSM II, 415). And he further insists in the *Principles* that, 'this knowledge is the first and most certain to be acquired by and present itself to anyone who is philosophizing in correct order' (PP, 5). This criterion essentially requires that the things we know must be the first

in the ways we acquired them, not in the way they are. For the first principle is essential in the derivation of other truths, and it will not be one that is derived from another truth, or from some other truths. Furthermore, its primacy of truth should be unquestionable, or else the whole epistemic project will be vain. The fact that there is something that we know first also implies a hierarchy, at least in the order in which we come to know with certainty, or the order in which one item of knowledge take precedence over others, and necessarily so.

The *second* criterion that the first principle must satisfy is that it should be a clear and distinct idea. In the Third Meditation Descartes writes:

Do I therefore also now know what would be required in order that I might be certain of anything? In this primary cognition there is, namely, nothing other than a certain clear and distinct perception of that which I affirm. (MFP, 119)

Again, in *The Search for Truth* he claims:

All the mistakes made in the sciences happen, in my view, simply because at the beginning we make judgments too hastily, and accept as our first principles matters which are obscure and of which we do not have clear and distinct notion. (CSM II, 419)

Finally, in the *Principles* he asserts that, ‘However, it is certain that if we give assent only to those things which we clearly and distinctly perceive, we will never accept anything false as being true’ (PP, 19). Given these passages we might be inclined to think what a clear and distinct idea is. Here I beg to leave quote in full Descartes’ answer to such question:

Indeed, in their whole lives, many men never perceive anything whatever accurately enough to make a sure judgment about it; because a perception upon

which a sure and unquestionable judgment can rest must not only be clear, it must also be distinct. I call 'clear' that perception which is present and manifest to an attentive mind: just as we say that we clearly see those things which are present to our intent eye and act upon it sufficiently strongly and manifestly. On the other hand, I call 'distinct', that perception which, while clear, is so separated and delineated from all others that it contains absolutely nothing except what is clear. (PP, 20)

From this passage we can understand that 'clarity' and 'distinctness' are not the same thing. And it follows that it is possible for a perception to be clear even though it is not distinct, but impossible for a perception to be distinct without being clear. As to demonstrate this Descartes offers pain as an example of a perception that can be clear without being distinct (PP, 20; MFP, 193).

Now, I shall attend to the *third* criterion of the first principle must satisfy is that it is the most certain. In *The Search for Truth* Descartes writes:

But, Polyander, while engaged upon this work of demolition we can use the same method to dig the foundations which ought to serve our purpose, and to prepare the best and most solid materials which will be needed for building up these foundations. So please join me in considering which, of all the truths men can know, are the most certain and the easiest to become acquainted with. (CSM II, 407)

Harking back to the discussion in the previous section, this criterion well nigh defines the epistemological project that Descartes claims to undertake. In fact, this requirement is so strong that he thinks that as soon as we come to know the first principle, we shall immediately see that it is even more certain than in the case of the law of non-contradiction (Sarkar 2003, 62).⁴⁸ In this stance, Descartes says:

⁴⁸ Law of non-contradiction is a law of classical logic (defended by Aristotle in *Metaphysics*, Book Gamma, chaps. 3-6) which states that a proposition cannot be both true and false. This law is also called law of contradiction.

If you simply know how to make proper use of your own doubt, you can use it to deduce facts which are known with complete certainty, facts which are even more certain and more useful than those which we commonly build upon the great principle, as the basis to which they are all reduced, the fixed point on which they all terminate, namely, “It is impossible that one and the same thing should exist and at the same time not exist. (CSM II, 415-6)

Next, the *fourth* criterion is that it should be the easiest to become acquainted with. We can see this criterion in the last line of the above quoted passage. It is evident that if the first principle is difficult to get to know, we cannot rely on its certitude. The entire edifice of knowledge would be shaky and could collapse. In Descartes’ view, any enquirer would be able to know the first principle by himself, as he reaches the age of maturity (CSM II, 406) and has a modicum of insight (CSM II, 409), without the resources of learning that he get in the Schools.

Further, the *fifth* criterion of the first principle is that it should be the simplest. In *The Search for Truth* Descartes says:

For the items of knowledge that lie within reach of the human mind are all linked together by a bond so marvelous, and can be derived from each other by means of inferences so necessary, that their discovery does not require much skill or intelligence—provided we begin with the simplest and know how to move stage by stage to the most sublime. (CSM II, 400-1)

Though this criterion seems hard to define, but if we peruse his *Rules* we can see that Descartes insists, throughout the work, that knowledge must begin with *simple natures*, that is, with those things which are not further analysable and can be grasped by a direct intuition. For example, in Rule 14, Descartes argues that the proper objects of the intellect are completely abstract entities which are free of images or bodily representations, and this is why when the intellect turns into itself it beholds those things which are purely

intellectual such as thought and doubt, as well as those simple natures which are common to both mind and body, such as existence, unity and duration. So, any such item of knowledge that is the simplest could serve as the starting point from which all other succeeding items of knowledge could be derived as he points out in Rule 6 of the *Rules*:

In order to separate out what is quite simple from what is complex, and to arrange these matters methodically, we ought, in the case of every series in which we have deduced certain facts the one from the other, to notice which fact is simple, and to mark the interval, greater, less, or equal, which separates all the others from this. (HR I, 15)

From this point of fact, Descartes also asserts that all items of knowledge can be arranged serially, and that arrangement will reflect the order in which things can be known on the basis of others. The first item in the series will be the simplest, and it will not be known, *ex hypothesi*, on the basis of anything else. However, it will serve as a basis on which succeeding items of knowledge in the series can be known (Sarkar 2003, 64).

At this stage, Descartes effectively argues that from an epistemic point of view, the first principle should be not only the simplest but also more easily known than the rest of the items in the series. Consequently, if a particular is more easily known than a universal, then the first principle will have the character of being a *particular* (Sarkar 2003, 64.). Thus, this is the *sixth* and the last criterion for something serving as the first principle. If knowledge of a universal is dependent on knowledge of a particular, then the first principle cannot be universal too. In short, the first principle cannot be a universal, but a particular. There is a potential conflict, however, between the requirements of simplicity and particularity. The first principle must be simple, so it must be universal; the first principle must be particular, so it cannot be universal. This conflict might be resolved by suggesting

that simplicity is a relative term (Sarkar 2003, 65). For according to Descartes, what he calls the simplest and the easiest thing is that we can make use of it in the solution of questions (HR I, 15). From this we can infer that if the first principle is a particular, it will help in solving problems in a manner in which a universal first principle cannot.

I must admit that none of these criteria is precise and that there are some questions can be raised pertaining to each of them, but I beg leave to shift our attention to watch Descartes at work using his methodical approach in attaining certainty, and see the result of his epistemological project.

3.3 Methodical Approach: Rules of Method and Method of Doubt

3.3.1 Rules of Method and Moral Maxims

Method was very prominent in Descartes' epistemological project as he says, 'I have formed a method by which it seems to me that I have the means to increase my knowledge by degrees and to elevate it little by little to the highest point' (DM, 15). But what exactly did Descartes mean by method?

By a method I mean certain and simple rules, such that, if a man observe them accurately, he shall never assume what is false as true, and will never spend his mental efforts to no purpose, but will always gradually increase his knowledge and so arrive at a true understanding of all that does not his powers. (HR I, 9)

As a matter of historical fact, this rules of method was an answer to the superfluous Aristotelian-Scholastic logic and the logic of Lull that Descartes criticised in his *Discourse on the Method*. He regards these kinds of logic as 'properly speaking nothing but a dialectic

which teaches one the means of making understood to others the things that one already knows, or even to speak without judgment about those of which one is ignorant, than to learn them' (DM, 33). And he even accuses Lull as a sophist (CSMK, 141). Apart from these, Descartes also criticises two other arts or sciences:

Then, as for the analysis of the ancients and the algebra of the moderns, besides the fact that they relate only to very abstract matters and to ones that do not seem to be of any use, the former is always so closely bound to the consideration of figures that it cannot exercise the understanding without greatly tiring the imagination; and one is so subjected, in the latter, to certain rules and to certain symbols that one has made of it a confused and obscure art that encumbers the mind, instead of a science that cultivates it. (DM, 33-5)

On the one hand these arts are criticised for being too abstract, useless, confused and obscure. And on the other hand, Descartes admits that they contain many true and good principles, but still they are mixed up with many other precepts which are either harmful or superfluous, and it is very difficult to separate the former from the latter. Given the flaws of these arts, Descartes is prompted to seek some other method, which comprising the advantages of these arts, were free from their defects (DM, 35).

Descartes explores the rules of method in scrupulous terms, and in extreme excesses indeed, in his *Rules*, and summarises them in four basic rules which he presents in the second part of the *Discourse* as: (1) never to accept anything as true that I did not evidently know to be such: that is to say, carefully to avoid precipitation and prejudice; and to include in my judgments nothing more than that which would present itself to my mind so clearly and so distinctly that I were to have no occasion to put it in doubt; (2) divide each of the difficulties that I would examine into as many parts as would be possible and as would be

required in order better to resolve them; (3) conduct my thoughts in an orderly manner, by beginning with those objects the most simple and the most easy to know, in order to ascend little by little, as by degrees, to the knowledge of the most composite ones; and by supposing an order even among those which do not naturally precede one another; and lastly (4) everywhere to make enumerations so complete and reviews so general that I were assured of omitting nothing (DM, 35).

The first rule is the rule of evidence and truth. And it should be read together with Rule 2 of his *Rules* which reads ‘to reject all such merely probable knowledge and make it a rule to believe only what is perfectly known and incapable of being doubted’ (HR I, 3), which can be taken, among others, as a piece of methodological advice (Williams 1978, 33). Essentially, from this rule it follows that in the first place, we should doubt any proposition until we have no reason anymore to doubt it (or else, by implication, reject it); and by such a method of doubt (I shall further elaborate this method in a moment) we will be capable of rejecting not only unconsidered convictions but also unclear and unexamined conceptions. Whereas in the second place, we can only accept any proposition as true only if it presents itself to our mind as clear and distinct. This rule is essential in Descartes’ epistemological project, and it can provide, when it is applied radically enough, the basis of a critique of all knowledge and hence makes certain knowledge possible.

Next, the second rule is the rule of analysis. This rule suggests that we should never try to solve any problem as such without firstly trying to solve the different problems it implies. The third rule is the rule of synthesis. In order to fathom the meaning of this [third] rule we should, firstly, understand what it means by *simple*. In Rule 7 of the *Rules*

Descartes defines simple as ‘those that is so clear and so distinct that they cannot be analysed by the mind into others more distinctly known’. Secondly, as to assume an order of the objects of investigation, I beg leave to quote in full Rule 5 of the *Rules* that reads:

Method consists entirely in the order and disposition of the objects towards which our mental vision must be directed if we would find out any truth. We shall comply with it exactly if we reduce involved and obscure propositions step by step to those that are simpler, and then starting with the intuitive apprehension of all those that are absolutely simple, attempt to ascend to the knowledge of all others by precisely similar step. (HR I, 14)

In point of historical fact, here lies the superiority of Descartes’ method over Galileo’s. In his letter to Mersenne in 11 October 1638, he writes:

But he (Galileo) continually digresses, and he does not take time to explain matters fully. This, in my view, is a mistake: it shows that he has not investigated matters in an orderly way, and has merely sought explanations for some particular effects, without going into the primary causes in nature; hence his building lacks a foundation. (CSMK, 124)

Finally, the fourth rule is the rule of enumeration and review. The virtue of this rule is that it can prevent us from omitting anything by enumerating every single object of investigation as says Descartes:

I added also that the enumeration ought to be methodical... if all these facts are arranged in the best order, they will for the most part be reduced to determinate classes, out of which it will be sufficient to take one example for exact inspection, or some one feature in a single case, or certain things rather than others, or at least we shall never have to waste our time in traversing the same ground twice. The advantage of this course is so great that often many particulars can, owing to a well devised arrangement, be gone over in a short space of time and with little trouble, though at first view the matter looked immense. (HR I, 21-22)

At the first sight the method is undeniably sound, but it might be difficult to carry it out. The method presupposes that we can analyse a problem and break it down from composite

into simpler units, and thus we can solve it by degrees from the most simple to the most composite one by supposing an order. But the questions are: how can we reduce the composite to the simple? How can we recognise the degrees of simplicity in the results of our analysis? And how can we arrange them in the right order and know what is the simplest proposition of all when we reach it? As it is not my intention to dwell in any detail on how Descartes proceeds in carrying out this rule save in so far as that is required for understanding the process of this analysis, the following distillation of what he says in the Rule 6 of the *Rules* may suffice as the touchstone:

If we want to separate out what is the most simple things from the most composite and to advance in the right order, we ought to proceed as follows that in the case of every series in which we have deduced certain facts the one from the other, we must notice which fact is simple, and to mark the interval, greater, less, or equal, which separates all the others from this. (HR I, 15)

Only after years of practising this method, as in the case of Descartes himself that he took about nine years,⁴⁹ then we can embark on our philosophical quest. In the time of practising this method, which teaches us to follow the order and to enumerate exactly all the circumstances of that which we are seeking, our mind will little by little accustom itself to conceive of its objects more neatly and more distinctly (DM, 37-39). But even more than that, in practising this method we also train our mental power and at the same time cultivate the two principal faculties of our mind that is, to wit perspicacity, which is the special mental aptitude of intuiting distinctly each single object, and sagacity, which is the complementary aptitude, that of artfully deducing the order of the interconnection of the things thus intuited (HR I, 28-31). The processes of intuition and deduction are indeed

⁴⁹ This range of time is counted from 1619 when he was twenty-three years old, based on his own remarks in the *Discourse* which he says that 'I should not undertake to achieve the goal thereof until I had reached an age much more mature than that of twenty-three, which I was then...', to the date of the composition of the *Rules for the Direction of the Mind* in 1628-29, and he also says that 'in all the nine years following... I meanwhile eradicated from my mind all those errors which had previously been able to slip into it' (DM: 47).

natural to our mind, and are so easy to be performed infallibly since they are the most simple and primary of all [mental operations] (HR I, 10), and on them alone that we must rely in the acquisition of knowledge (HR I, 28). From this point of fact, the method has a very interesting property that it results in knowledge that is completely certain. For the answer to any problem is grounded in an intuition, whereas the answers to the successive problems in the series are to be answered by deducing propositions from propositions that have been intuitively grasped as well.

The rules of method is supposed to be read together with four maxims of morals as Descartes claims they were drawn from the method (DM, 41-47): *firstly*, ‘to obey the laws and the customs of my country, constantly holding on to the religion in which God has given me the grace to be instructed from my childhood, and governing myself in every other thing according to the most moderate opinions, and those furthest removed from excess, which were commonly accepted in practice by the most sensible of those with whom I would have to live’ (DM, 167). This is the maxim of conformity. *Secondly*, ‘to be as firm and as resolute in my action as I could, and to follow the most doubtful opinions, when I had once decided on them, with no less constancy than if they had been very assured’ (DM, 168).⁵⁰ This is the maxim of resolution. *Thirdly*, ‘to try always to conquer rather myself than fortune, and to change rather my desires than the order of the world; and, generally, to accustom myself to believe that there is nothing that be entirely within our power but our thoughts, so that, after we have done our best concerning the things that are external to us, all that which is lacking for us to succeed is, in regards to us, absolutely impossible’ (DM, 168). This is the maxim of resignation, and it means that one ought ‘to

⁵⁰ In CSM I, this rule reads: ‘I ought to be firm and decisive in my actions even when these are based on the most doubtful opinions’. Please refer to page 19 of this chapter for clarification on seeming contradiction between his rules of method and the moral maxims.

make a virtue out of a necessity'. *Finally*, to conclude this morality, 'I took it upon myself to do a review of the various occupations that men have in this life, in order to try to choose the best one; and, not that I would want to say anything about those of others, I thought that I could not do better than to continue in that very one second, in which I found myself, that is to say, than to spend all my life in cultivating my reason, and in advancing, as far as I could, in the knowledge of truth, following the method that I had prescribed to myself' (DM, 168). This is the maxim of a vocation according to reason.

Needless to say, certain stoic influence on all four moral maxims is so evident that we can trace a direct connection between the morality of the *Discourse* and that of Seneca's *De vita beata (On the Happy Life)* from his correspondence with Princess Elizabeth from 21 July 1645 to 6 October 1645 (CSMK, 255-67). Furthermore, it must be noted that there is also an Epicurean influence in this morality from the passage that reads: 'I had experienced such extreme contentment since I had begun to make use of this method that I did not believe that one were able to obtain contentment more sweet or more innocent in this life; and, discovering every day by its means some truths that to me seemed important enough and commonly ignored by other men, the satisfaction that I obtained therefrom so filled my mind that everything else hardly concerned me' (DM, 45).

To return to the main point, we may wonder what is the connection between Descartes' moral maxims and his epistemological project since there is no recognisable correspondence, at the first sight, between the four principal rules of the method and the four maxims of the provisional morality. To such a question there are couple of answers that I can suggest here. Firstly, in the light of Descartes' allegory of the house, the

provisional morality is significant as a lodge while we are working on the rebuilding the house where we are living, and so with his epistemological project as to build a new foundation of knowledge it is important to make himself not remain irresolute in his actions while reason would oblige him to be so in his judgments, and thus he can live happily as he could during this time. In his own words:

And, finally, just as it is not enough, before beginning to rebuild the house where one is living, merely to pull it down... but it is also necessary to be provided with some other one, where one might be comfortably lodged during the time in which one will be working on the first one; thus, too, in order that I did not remain irresolute in my actions while reason would oblige me to be so in my judgments, and that I did not cease to live as happily as I could during this time, I formed for myself a provisional morality... (DM, 41)

From this passage, it is evident that Descartes construes his moral maxims as the regulative principles for the practical affairs of his everyday life that might be interrupted by employing the first of his rules of method. Secondly, Descartes is well aware, as clearly can be seen from the above passage, of the radical character of the first rule of method and its possible implications to practical affairs that he designs his moral maxims as to fill the lacuna resulted from the demolition process of the first rule of method (which I shall discuss in the next sub-section), as an attempt to avoid indecisiveness and unhappiness during practising the method. Realising the fact that life always requires him to act without respite even in the absence of certain knowledge, Descartes decides to keep his mind peaceful and free from indecisiveness while devoting himself to establishing the foundations of his knowledge (Naaman-Zauderer 2010, 160). In other words, Descartes conceives the moral maxims as pragmatic counsels of prudence pertaining to his own welfare. Later, in the Preface to his *Principles*, Descartes asserts that formulating a

provisional moral code, which is sufficient to regulate the actions of our life, is prerequisite before we embark on the project of rebuilding the foundations of knowledge:

I should wish to explain here the order which it seems to me ought to be observed so that one may learn. First, a man who thus far has only the common and imperfect knowledge... must strive above all to form for himself a Moral Code which can suffice to regulate the actions of his life; because that tolerates no delay, and because we must above all strive to live well. (PP, xxiii-xxiv)

Secondly, through the moral maxims Descartes is perhaps attempting to raise himself by his own bootstraps. From this point of view, it can be aptly said that Descartes provisionally accepts moral maxims as the right one while he is searching after the right method of establishing his foundations of knowledge, and then such a right method in its turn will legitimise the moral maxims he had initially adopted. But Descartes could not exclude the possibility that his moral maxims would eventually be found inadequate, or even false, until this task was completed (van Cleve 1979).

Method was very prominent in Descartes' epistemological project as attested to his earlier works, the *Rules* and the *Discourse*. But the first rule of his method gives the distinctive character to his investigation of knowledge, and the method he uses in that investigation is famously known as the *Method of Doubt*.

3.3.2 Method of Doubt

Though certainty is central in Descartes' investigation of knowledge, but the route to this goal is the Method of Doubt. But it is very important to note that the Method of Doubt is not the whole of Descartes' method. Nor the whole of his philosophical method, since, as

we shall see, doubt introduces and forms the enquiry, but eventually makes way for a systematic vindication of knowledge, and an orderly reconstruction of it (Williams 1978, 33). Rather the role of Method of Doubt in his own scheme is to act as an instrument for providing foundations of knowledge. In the fourth part of the *Discourse* he writes:

For a long time I had noticed that, as for morals, it is sometimes necessary to follow opinions that one knows to be quite uncertain, all the same as if they were indubitable, as has been said above; but, because I then desired to devote myself solely to the search for the truth, I thought that it was necessary that I were to do completely the contrary, and that I were to reject, as absolutely false, all that in which I could imagine the least doubt, in order to see whether there would remain, after that, something in my beliefs that were entirely indubitable. (DM, 51)

And again in the opening of the First Meditation Descartes writes:

Reason already persuades me that assent is to be withheld no less accurately from the opinions that are not fully certain and indubitable than from the ones that are overtly false, rather will it suffice to reject all my opinions if I shall have found any reason for doubting in each one. And therefore nor will these opinions have to be gone through individually, which would be an infinite task. But because—the foundations having been undermined—whatever has been built upon them will collapse spontaneously, I will go right for those principles upon which rested all that which I have once believed. (MFP, 89)

Before going further, I should firstly consider what makes Descartes think Method of Doubt as the right instrument in his project. To answer this question I might feel tempted to resort to historical fact as a possible explanation for Descartes' conceiving his Method of Doubt. The epistemological project of Descartes was a direct answer to and a desperate struggle to emerge from the challenge of Montaigne's scepticism (Gilson 1999, 100). It is perfectly evident from the very form of the *Discourse*, and, in fact, it was one more essay written by Descartes as an answer to Montaigne's *Essays*. Descartes was very well conversant with the work of Montaigne, and indeed the long list of passages of the *Discourse* are nothing but an echo of the *Essays*. For instance, the opening sentence of the

Discourse which reads, ‘Good sense is the best distributed thing in the world for everyone thinks himself to be so well provided with it that even those who are the most difficult to satisfy in every other thing are hardly accustomed to desire more of it than they have’, (DM, 15) is actually borrowed from Montaigne’s essay “On Presumption” which reads, ‘of all the gifts made to man by Nature, the most justly distributed is judgment (or sense), for no man is ever displeased with what amount of it he may have received’ (Montaigne 1993, bk. II, chap. 17). From his own account, he said that at the end of his studies he found that he was a sceptic (DM, 17). He had to be one, for it was the fashion of his time and with the sceptical currents of his time, the so-called “Pyrrhonist Crisis”.⁵¹ But he was a sceptic waiting for something better than scepticism. And he cannot be called a sceptic just because he employs sceptical argument in his investigation of knowledge. For he uses them merely as an heuristic device to show that we indeed have knowledge, and therefore he is a ‘methodological sceptic’ rather than a ‘problematic sceptic’—the term which means someone who thinks that sceptical problems are serious and pose a genuine threat to our ambition to acquire knowledge. Furthermore, he himself confesses that in employing this method he is not to imitate the sceptics, who only doubt for the sake of doubting, and whose effect being always undecided (DM, 47), but he is to ‘cast aside the shifting earth and the sand in order to find the rock or the clay’ (DM, 47) that is, to discover certain knowledge—that would stand the acid test of Montaigne’s universal scepticism. And, in fact, he was trying to defeat scepticism rather than to promote it and the method of doubt takes on the form of *pre-emptive scepticism* which serves the aim of answering sceptical doubts by taking them as far as they can be taken and coming out on the other side, i.e. certainty, as he puts it in his conversation with Burman in 16 April 1648 as, ‘not only the

⁵¹ For a magisterial portrayal of the scepticism that prevailed during the sixteenth and seventeenth centuries in Europe, and especially in France, in the fields of science, mathematics, and religion see Richard H. Popkin, *The History of Scepticism: From Erasmus to Descartes* (Oxford: Oxfors University Press, 2003); and Jose R. Maia Neto, “Academic Skepticism in Early Modern Philosophy,” *Journal of the History of Ideas*, Vol. 58, No. 2, (1997), 199-220.

customary difficulties of the sceptics but every difficulty that can possibly be raised; the aim is in this way to demolish completely every single doubt' (CSMK, 333).

Given this fact, I might be inclined to shift my attention to the nature and purpose of Descartes' doubt. From the above quoted passages, it is clear that Descartes presents the method of doubt as a strategy or as a systematic way of achieving his epistemological aim that is, as has been said before, to attain certain knowledge. His strategy in employing this method is to aim for certainty by rejecting the doubtful. But, it should be noted that, to reject the doubtful here means to suspend judgment about it, or at most to treat it as false for the purposes of the argument, not to assert that it is false (Williams 1978, 36). As to illustrate this method in an interestingly manner as Descartes did to describe his method, I would like to resort to his analogy of the house that he frequently uses as to justify the necessity of rejecting old, doubtful opinions in order to establish new ones or to secure old ones on a firm foundation:

And, as, in pulling down an old house, one ordinarily retains the debris thereof in order to make use of it in building a new one, so, in destroying all those opinions of mine which I judged to be poorly founded, I made various observations and acquired many experiences that have since then served me in establishing more certain opinions. (DM, 47)

And again, in *The Search After Truth*:

For, since this knowledge is not enough to satisfy him, it must be faulty: I would compare it to a badly constructed house, whose foundations are not firm. I know of no better way to repair it than to knock it all down, and build a new one in its place. For I do not wish to be one of those jobbing builders who devote themselves solely to refurbishing old buildings because they consider themselves incapable of undertaking the construction of new ones. But, Polyander, while engaged upon this work of demolition we can use the same method to dig the foundations which ought to serve our purpose, and to prepare the best and most solid materials which will be needed for building up these foundations. (CSM II, 407)

It would thus be appropriate to say that Descartes construes sceptical doubt as the tool for destroying and re-constructing the unshakable foundations of knowledge:

Throughout my writings I have made it clear that my method imitates that of the architect. When an architect wants to build a house which is stable on ground where there is a sandy topsoil over underlying rock, or clay, or some other firm base, he begins by digging out a set of trenches from which he removes the sand, and anything resting on or mixed in with the sand, so that he can lay his foundations on firm soil. In the same way, I began by taking everything that was doubtful and throwing it out, like sand; and then, when I noticed that it is impossible to doubt that a doubting or thinking substance exists, I took this as the bedrock on which I could lay the foundations of my philosophy. (CSM II, 366)

In this respect, I found Lex Newman illustration of Descartes' architectural analogy is so helpful in understanding the structure of Descartes' sceptical doubts. Newman suggests that in the architectural analogy, we can think of bulldozer as the ground clearing tools of demolition, whereas in knowledge building, Descartes regards sceptical doubt as the ground clearing tools of epistemic demolition (Newman 2010). Bulldozer undermines literal ground; while doubt undermines epistemic ground. Descartes ultimate aims, however, are constructive. And, as pointed out earlier, Descartes aims, unlike the sceptics, to reach certainty. Thus the ground clearing bulldozer can be used for both destructive and constructive purposes. On the destructive side, a bulldozer can effectively strip away loose sand, or even moderately firm ground, and in the same way in knowledge building, epistemic bulldozer strips away every belief or opinion that was so doubtful. On the constructive side, a bulldozer can identify bedrock, by confronting ground that it cannot dislodge as in the case of the epistemic bulldozer identifying an epistemic ground that can be an unshakeable foundation of knowledge. Thus, in this point of view, doubt is used to

identify unshakeable epistemic grounds, precisely by its inability to undermine that ground (Newman 2010).

From this analysis we might be inclined to think that the method of doubt is *universal* and *hyperbolic* in character. And, indeed, Descartes himself maintains that these characters are so helpful to the success of the method. Here again we might feel tempted to resort to the architectural analogy as a persuasive explanation for clarifying this standpoint. By incorporating these attributes it enables the method to be more effectively in identifying first principles. And by making doubt universal and hyperbolic it helps to distinguish genuine unshakability from the mere appearance of it. As to understand this point of view, let us firstly consider the *universal* character of the method of doubt. From Descartes' assertion of the need 'to demolish all things and to begin again from the first foundations' (MFP, 87), it is to be understood that it is not merely to apply doubt to *all* candidates for knowledge, but to apply doubt *collectively*. In his response to the Jesuit mathematician Pierre Bourdin, Descartes offers the following analogy:

Suppose [a person] had a basket full of apples and, being worried that some of the apples were rotten, wanted to take out the rotten ones to prevent the rot spreading. How would he proceed? Would he not begin by tipping the whole lot out of the basket? And would not the next step be to cast his eye over each apple in turn, and pick up and put back in the basket only those he saw to be sound, leaving the others? In just the same way, those who have never philosophized correctly have various opinions in their minds which they have begun to store up since childhood, and which they therefore have reason to believe may in many cases be false. They then attempt to separate the false beliefs from the others, so as to prevent their contaminating the rest and making the whole lot uncertain. Now the best way they can accomplish this is to reject all their beliefs together in one go, as if they were all uncertain and false. They can then go over each belief in turn and re-adopt only those which they recognize to be true and indubitable. (AT 7, 481)

From this it follows that if we mistakenly treated one falsehood as a genuine first principle, it is therefore threatens to spread falsehood to other beliefs in the system. It is indeed much

more threatening in terms of Descartes' epistemological system as he claims that all the knowledge in his philosophy are inter-connected. Thus, a collective doubt helps to avoid such mistakes. And it also ensures that the method only approves candidate first principles that are genuinely unshakeable. For it eliminates the appearance of unshakability of one principle due to its logical relations with other principles which themselves are not subjected to doubt (Newman, 2010).

And secondly, let me consider how *hyperbolic* feature of method of doubt can contribute to its success. The hyperbolic or extreme feature of methodical doubt is important in identifying the bedrock which Descartes can lay foundation for his knowledge. Understood in this way, the more hyperbolic the doubt, the better it serves in building such epistemic foundation. In this respect, Descartes seems to conceive the most powerful or the most hyperbolic doubt that is the Evil Genius Doubt—which I shall further develop in a moment. If the method divulges epistemic ground that can survive this hyperbolic doubt, then it can be counted as epistemic bedrock.

Let me now turn to the epistemic demolition project that Descartes commences in the First Meditation. In this meditation Descartes presents a series of three sceptical arguments from which we can see the structure of his doubt. Politically, Descartes designs these arguments as to eliminate his current beliefs in preparation for replacing them with certain ones. But, it is impossible to go through all of his beliefs individually—since there are too many of them—and determine if he can find reasons to induce even the least doubt about those beliefs for, as he puts it, 'would be an infinite task' (MFP, 89). His strategy,

therefore, is to undermine the epistemic grounds that are the *basic principles* on which all of those beliefs rest, and consequently, they can be demolished.

Before going further to discuss his sceptical arguments, it is significant to pause for a moment and to pose the question of what Descartes meant by principles. In the light of his First Meditation it is no doubt that he means the five senses and the intellect. There are, so to speak: the sight principle; the smell principle; the sound principle; the touch principle; the taste principle; and the intellect principle. Otherwise, it is difficult to see how Descartes could have avoided an endless task. But it is also no doubt that a list of knowledge of these basic principles is infinite, and then, in effect, the task is endless. But it is a fact for us that the knowledge of these basic principles is derived from the sense organs or from the intellect. Thus it follows that if the occasional testimony of these organs or of the intellect could be disputed, the task would then be finite and manageable (Sarkar 2003, 50). This is exactly what Descartes attempts to do in his First Meditation: to dispute, by way of sceptical arguments as the ground clearing tools of epistemic demolition, the testimony of the five senses and the intellect. And now I shall attend to these arguments in turn.

A. Sense Doubt

The first sceptical argument is directed at the naïve belief that everything ‘acquired either from the senses or through the senses as maximally true’ (MFP, 89). But against this Descartes finds that ‘these senses sometimes deceive’ (MFP, 89): for example, a mirage on the desert. Thus, the sight principle is disputed. Let me now consider this proposition: ‘*I am holding a piece of paper with the hands*. By means of what reason that it could be doubted?

By disputing, as has been indicated earlier, the testimony of the witnesses. In this case, the witnesses are my five senses. And they report that the object at my hands looks like paper, smells like paper, feels like paper, etc. How can these witnesses be disputed, then? By pointing out that they have frequently been unreliable, and since they have once deceived me.' In this regards, Descartes says, 'it is a matter of prudence never to confide completely in those who have deceived us even once' (MFP, 89). As a consequence, the sound principle, the taste principle, the smell principle, and the touch principle are disputed, too.⁵² Now, as to hark back to my earlier exposition of the method of doubt, this sceptical argument had succeeded in undermines the senses as epistemic ground in knowledge building. But it is notable that Descartes did not intend, as has been said before, to assert that the propositions such as the above are false, but rather they are to be assumed or treated as false, if not proved true. If they are not proved true, he therefore would suspend judgment or withhold assent to them.

B. Dreaming Doubt

The second argument, which is famously known Dreaming Doubt is directed against some beliefs that plainly seem cannot be doubted, although they are derived from the same senses. For instance: *I am sitting by the fire; I am wearing winter robe; and I am sitting on the bench*; or that *I have ears, eyes, hands, and body*. To deny these is to be insane. Then, here comes the dream argument. Descartes firstly considers that:

And yet now I certainly intuit this piece of paper with waking eyes. This head which I move is not asleep. As one who is prudent and knowing I extend this hand and I sense. Things so distinct would not happen to someone sleeping. (MFP, 89)

⁵² Roughly this same line of argument is developed by Sarkar 2003.

But Descartes immediately feels unconvinced from the fact that a vivid, realistic dream experience cannot be distinguished from his waking experience with certainty. And he continues:

As if I did not remember that on other occasions I have also been deluded in dreams by similar cogitations. While I cogitate these things more attentively, I see so plainly that being awake can never be distinguished from sleep. (MFP, 89)

Descartes' claim here is not about whether it is true that one is dreaming, nor about whether one believes he is dreaming, but instead about one's justification of his dreaming (Newman 2006). His contention is that one cannot eliminate that he is dreaming. And realising this uncertainty makes one concede that all his opinions derived either from or through the senses are considered false. Now, Descartes likens his dreams experience to paintings. Now, an artist can 'try to feign sirens and satyrs with maximally unusual forms', but there are some things in the paintings that are not, and cannot be feigned, namely, colours, corporeal nature in general and its extension, the figure of extended things, quantity, magnitude, number, place, and time (MFP, 92-3). From this point of view, a painter can create composite objects such as the idea of the head, ears, and feet, but he cannot create simple things, such as size, time, quantity, or place. These are called simple, general, and universal things. Thus, Descartes goes on to conclude that empirical disciplines such as 'physics, astronomy, medicine and all the other disciplines that depend on the consideration of composite things are indeed dubious' (MFP, 93). Again, from this account, the sceptical argument had succeeded in undermining what seems as a moderately firm epistemic ground.

C. Evil Genius Doubt

In the light of the following quotation, Descartes holds that transparent truths along with demonstrable truths, and many judgments of internal sense are contain something certain and indubitable:

But that arithmetic, geometry and the others of this kind—which treat only of the simplest and maximally general things and which care little about whether these would be in the nature of things or not—contain something certain and indubitable. For whether I would be awake or sleeping, two and three added together are five, and a square has no more than four sides. Nor does it seem that it can happen that truths so perspicuous would incur the suspicion of falsity” (MFP, 93)

Now, has Descartes really found something certain? Not quite, yet. To become absolutely certain, they must stand unshakeable in the face of the most powerful doubt. Thus this ideal of extraordinary doubt has prompted Descartes to set stage for the introduction of another sceptical hypothesis that incorporates, as has been indicated before, the most hyperbolic character of all, that is, the Evil Genius Doubt. Here, then, is the hypothesis:

I shall, then, suppose that not the optimal God—the font of truth—, but rather some malign (evil) genius—and the same most highly powerful and most highly cunning—, has put all his industriousness therein that he might deceive me: I shall think that the heavens, the air, the earth, colours, figures, sounds and all external things are nothing other than the playful deceptions of dreams by means of which he has set traps for my credulity; I shall consider myself as nothing having hands, not eyes, not flesh, not blood, not any senses, but rather as falsely opining that I have all these things. (MFP, 97)

In this proposition, Descartes supposes that he was being manipulated by “evil genius” of the “most highly powerful” and “most highly cunning” that gave him flawed cognitive faculties, such that he is in error even about epistemically impressive matters, or even in the simple matters that seem supremely evident (Newman 2010). Consequently, this

proposition has undermined intellect principle as the unshakeable epistemic ground. And, thus, the Evil Genius Doubt has led Descartes to the outermost limit of human doubt.

However, many have misunderstood Descartes to assume that the Evil Genius Doubt draws its force from the “most highly powerful” attributed to the deceiver (Newman 2010).⁵³ Instead, he contends that an equally powerful doubt may be generated on the opposite supposition:

But there might perhaps be some people who would prefer to deny the existence of a God so powerful than to believe that all other things are uncertain... because to be deceived and to err seem to be certain imperfections, the less powerful an author of my origin these people will assign, the more probable will it be that I am so imperfect that I would always be deceived. (MFP, 95)

The same parallel point can also be found in the *Principles*:

...Because we have heard that there is a God who can do all things, and by whom we were created. For we do not know whether He chose to make us in such a way that we are always mistaken, even about those things which appear to us to be the best known of all... And if we imagine ourselves to exist, not as a result of [an act of] a most powerful God, but either of ourselves, or of any other thing: the less powerful we consider the author of our origin, the more credible it will be that we are so imperfect that we are always mistaken. (PP, 4)

Looking from Descartes’ vantage point, the Evil Genius Doubt is nothing but a multiple hypothesis that can generate the more general hyperbolic doubt. And in the light of the following quotation from Descartes, a view repeated throughout his *Meditations*, this sceptical argument is directed at our cognitive nature that our minds be possibly flawed: ‘God could perhaps have given to me such a nature that I were to be deceived even about those things which would seem most manifest’ (MFP, 121). Again, he says: ‘I can persuade

⁵³ I am obliged to confess that I am so much indebted to Lex Newman (2010) in developing the following analysis.

myself that I have been made by nature such that I would from time to time be deceived in the things that I think that I perceive as evidently as possible' (MFP, 181). And finally he adds: 'I saw that nothing stands in the way thereof that I had been constituted so by nature that I would be deceived even in the things that appeared to me as most true' (MFP, 181).

What is essential, therefore, to the Evil Genius Doubt is the realisation that we can worry that our cognitive faculty can be flawed. And Newman has named this doubt as "Meta-Cognitive Doubt" as to make clear that it is fundamentally about the implications of having a flawed cognitive nature, rather than of being made by an omnipotent creator (Newman 2010).

As to sum up this section a little, these series of sceptical arguments that Descartes presents in the First Meditation are prominent instruments in his epistemological project as to delineate the unreliability of the senses as epistemic principles, as he notes in the introductory synopsis of the *Meditations* to 'free us from all prejudices (preconceived opinions, as has been used in other translations of *Meditations*)⁵⁴ and prepare a very easy way for leading the mind away from the senses' (MFP, 79), by which, in effect, we can discover the unshakeable certain epistemic principles.

Having watched Descartes on his way towards his aim by employing methodical doubt, I shall now resume our discussion to see the result that he achieves from such doubting process, which famously known the *Cogito*.

⁵⁴ For example see CSM II 1984.

3.4 The Result: Cogito

The Method of Doubt, radically and generally employed, seems to lead Descartes nowhere. The old epistemic grounds all seem to have stripped away by it; all might be untenable. Thus, is there anything at all that he can know to be unshakeable and certain that can survive the process of doubt? Yes, there is: the *Cogito*. Then, here, in the Second Meditation, lies the kernel of the cogito claim:

I have persuaded myself that there is nothing at all in the world, no heavens, no earth, no minds, no bodies: also, then, that I am not? No, if I was persuading myself of something, then certainly *I* was. Yet there is a deceiver—I know not who he is—, most highly powerful and most highly cunning, who always industriously deceives me. If he is deceiving me, then without doubt *I* also am. And he might deceive me as much as he can, he will still never effect that I would be nothing, so long as I shall cogitate that am something. So that—all things having been weighed enough, and more—this statement were, finally, to be established: “*I am, I exist*” is necessarily true, so often as it is uttered by me or conceived by the mind. (MFP, 101)

In his first published work, four years prior to the *Meditations*, a similar passage, at a similar juncture in the argument, appeared in which his thinking is offered both as part of what is certain, and also as the ground, so it seems, of the assurance that he exists:

...I resolved to feign that all the things that had ever entered my mind were no more true than the illusions of my dreams. But, immediately afterward, I took note that, while I wanted thus to think that everything was false, it necessarily had to be that I, who was thinking this, were something. And, noticing that this truth – *I think, therefore I am* – was so firm and so assured that all the most extravagant suppositions of the skeptics were not capable of shaking it, I judged that I could accept it, without scruple, as the first principle of the philosophy that I was seeking. (MFP, 51)

While in the *Principles*, that he published three years after the *Meditations*, the corresponding claim was formulated, by incorporating it with the principle of the law of non-contradiction and the methodical philosophical enquiry, as follows:

Further, while rejecting in this way all those things which we can somehow doubt, and even imagining them to be false, we can indeed easily suppose that there is no God, no heaven, no material bodies; and even that we ourselves have no hands, or feet, in short, no body; yet we do not on that account suppose that we, who are thinking such things, are nothing: for it is contradictory for us to believe that that which thinks, at the very time when it is thinking, does not exist. And, accordingly, this knowledge, *I think, therefore I am*, is the first and most certain to be acquired by and present itself to anyone who is philosophizing in correct order. (PP, 4-5)

Cogito ergo sum or “I think, therefore I am”, is the most famous of Descartes’ proposition, and the whole of his philosophy is virtually contains in that initial proposition, for it is the first principle, as he affirms, of his philosophy. But in the light of historical fact, Descartes’ proposition is not new to us, for he borrowed it, directly or indirectly, from St. Augustine. Here I beg to leave quote in full St. Augustine’s words in his *Soliloquies*, book II, chapter I, as to make sure that I am not forging historical analogy:

You, who wish to know yourself, do you know at least that you are?—I know it.—How do you know it?—I don’t know.—Are you a thing that is simple, or that is composed?—I don’t know.—Do you know whether you are moving or not?—I don’t know.—But do you know that you think?—Yes, I know that.—Consequently, that you think at least is true.—It is true.—You know therefore that you are, that you live and that you think. (Gilson 1997, 124)

Be that as it is not Descartes’ original invention, the importance of the *cogito* to him, however, is the foundational role it plays in his epistemic system. It is the first epistemic principle we come to know when philosophising in correct order. As a matter of fact, the *cogito* is also the most discussed of Descartes’ propositions and it raises numerous philosophical questions, and there has been much controversy about the ground of the

certainty that it seems to possess; whether it is, as it seems to be, an inference; and what content can be found in the proposition ‘sum’, from which Descartes is to extract quite ambitious metaphysical conclusion (Williams 1978, 73).⁵⁵ I shall not settle this controversy here for my principal concern now is trying to explain the certainty of the *cogito* since Descartes himself regards it the most certain principle.

As to begin to develop the ground of the certainty of the *cogito* it is best to proceed in the light of the criteria of certainty that I have delineated in the previous section. After doubting everything thoroughly, Descartes could not find any proposition that he could not doubt save the *cogito*. Then he accepts it as the first epistemic principle that he seeks after. This proposition, therefore, satisfies the *first* criterion of certainty that Descartes had listed. *Second*, the *cogito* is the most certain. It follows from the fact that if any attempt to establish even minimal doubt will surely fail, as he shows in the *cogito* [argument], it therefore leads to certainty. And since the *cogito* is the most indubitable proposition, that all the most extravagant suppositions of the sceptics were not capable of shaking it, then it satisfies the criteria of being the most certain. Third, the *cogito* is also a clear and distinct idea. Both of these properties are realised when we are in the state of *cogito*. *Fourth*, the *cogito* meets the criterion of certainty that it is the easiest to become acquainted with. Given it presupposes no special knowledge, thus the terms of understanding it, or coming to recognise it, are common prevalence. The doubt and demolition that precede the *cogito* may involve special fields of knowledge, such as astronomy, physics, mathematics, but the

⁵⁵ The controversy about the *Cogito* continues until recently as can be seen from the following works: Jaakko Hintikka, “*Cogito ergo sum*: Inference or Performance?” *Philosophical Review*, Vol. 71 (1962), 3–32; Bernard Williams, *Descartes: The Project of Pure Inquiry* (London: Penguin Books, 1978); Peter Markie “The Cogito and Its Importance,” in *The Cambridge Companion to Descartes*, ed. John Cottingham (Cambridge: Cambridge University Press, 1992); Thomas C. Vinci, *Cartesian Truth*, (Oxford: Oxford University Press, 1998); Janet Broughton, *Descartes’s Method of Doubt* (New Jersey: Princeton University Press, 2002); Husain Sarkar, *Descartes’ Cogito: Saved from the Great Shipwreck* (Cambridge: Cambridge University Press, 2003); David Cunning, “Descartes on the Dubitability of the Existence of Self,” *Philosophy & Phenomenological Research*, 74 (2007), 111–31; and John Carriero, *Between Two Worlds: A Reading of Descartes’ Meditations* (New Jersey: Princeton University Press, 2009).

doubting itself does not rest on any special kind of knowledge. Hence we can easily become acquainted with it (Sarkar 2003, 82). *Fifth*, it must fulfil the criterion of being the simplest. Essentially, only the grasp of simple notions—such as truth, doubt, certainty, and existence—are presupposed, together with the ability to join them. But the joining takes place in a simple, single mental state and does not involve a complex mental process (Sarkar 2003, 82). And *Sixth* and the last, it must satisfy the criterion of certainty of being a particular. In this stance, the *cogito* as the first epistemic principle does not rest on some deep and general propositions about time, thinkers, and existence. Rather it is about this *particular* thinker in this *particular* mode of doubt and of his existence in that *particular* moment. From the foregoing elucidation it is obviously clear that the *cogito* satisfies all six criteria of certainty, and hence it is the first principle of epistemic foundation that Descartes was seeking.

The *cogito*, however, is foundational only in the sense of being a first principle that contains unshakeable truth, but not in the sense of being a first truth about the nature of anything (Garber 2005, 75). Thus, in his Third Meditation, Descartes buttresses the *cogito* by the second of his first principle: that God exists and is no deceiver (MFP, 137-149). And it is through this principle that he grounds all subsequent knowledge as he claims that God has created in us the clear and distinct ideas (MFP, 167) which makes us able to penetrate into the nature of things. Returning to Descartes' house metaphor, it is in this way that he incorporates empiricist principles that he rejected earlier in the First Meditation into his new house of knowledge.

In his Sixth Meditation, after a more careful consideration of the faculty of imagination and the closely related faculty of sensation, Descartes notes that: ‘But after I am now beginning to know better both me myself and the author of my origin, I think that surely not all the things that I seem to have from the senses are rashly to be admitted. Yet I also think that not all such things are to be called into doubt’ (MFP, 195). But all the things that we acquire from the senses can only be trusted as being true when examined by reason, that is when reason does not give us better grounds for rejecting them (MFP, 203).

3.5 Concluding Remarks

The present chapter attempted at providing a reconstruction of Descartes’ philosophical experiment in dealing with the problem of the foundations of knowledge. It consisted, to a considerable extent, of philosophical argument of which direction was shaped by what I take to be the most interesting philosophical concerns of Descartes. [In the midst of the philosophical scepticism, which question the possibility of knowledge, brought about by the Aristotelian tradition] Descartes decides that the whole business of knowledge has to be done all over again. He then commences his philosophical experiment through the project of erecting a new system of knowledge based upon firm foundations. Now, I shall turn to the genesis of the philosophical ideas of Karl Popper. With him a new philosophical experiment in dealing with the problem of the foundations of knowledge was to take a different approach, and it is to that experiment I now turn my attention.