UNIVERSITY OF WESTERN SYDNEY

THE TENSIONS OF MODERNITY: DESCARTES, REASON AND GOD.

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by

E. J. Birkett

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PLEASE NOTE

The greatest amount of care has been taken while scanning this thesis,

and the best possible result has been obtained.
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SUMMARY

Reason, material objects, God, mind and body are all interrelated in Descartes' philosophy. The misapprehension of one will lead to misunderstandings in all of them. They are bound together by being a part of the one God given secure universe. This allows Descartes to put forward the understanding of the universe as being one in which rational science was possible and indubitable certainty achievable. Because they are all organically related in the one meaningful system, the essential natures of these things which Descartes discovers flow into one another in their actual existence in the world. Accepting the picture of the universe as a rational place where certainty is possible, is part of what defines much of modernity as modernity. Since this is one way of ensuring certainty, modernity demands that a thing's essence should reflect its manner of existence. However this leads to modernity demanding of Descartes' philosophy that it reflect this same structure. Modernity then reads Descartes as trying to present such a picture, and consequently finds that Descartes' arguments do not work.

Because Descartes' universe is God's universe, he is able to offer to humanity a very strong form of autonomy. But modernity prefers to have a less powerful form of autonomy which is independent of God, but which makes itself a servant to nature and the community of reason. This is a result of the price of entry into the rational universe through Descartes' method of doubt.

As a consequence of modernity's reworking of Descartes' understanding of autonomy, and their demand that a thing's essence should exactly reflect its mode of existence, irreducible tensions develop in modernity. These are particularly obvious in the case of the relationship between science, reason and God, and between the mind and the body. This thesis addresses these tensions.
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INTRODUCTION

a) Skull and Crossed Wires.

Descartes' skull is not to be found in the Chapel of the Sacre Coeur in the Church of St. Germain-des-Pres in Paris with the rest of his remains. It sits in the Musee de l'Homme in the Palais de Chaillot (Gaukroger, 1995, p.417). This is both ironic and illustrative. It is ironic because the body, which for Descartes is the least spiritual part of us, is housed in a church, while that which has been taken to represent his mind, his most spiritual part, free from physical laws, is housed in a museum. This is illustrative of the divide between religion and science which he unintentionally accelerated (Chapter Seven). The head, as the metonymic representation of the mind, is removed from the control of the Church and placed under the control of science. Science has taken its own. Descartes' skull is not dead and buried but a living exhibit, enlivened by its viewers. Science comes to embody reason and hence gives life to the things it examines. However, since in religion there are irreducible moments of faith, then as science becomes the model of reason, religion becomes increasingly irrational. The Church then comes to be seen as anti-scientific. The Church is left to look after the bones of the dead for they are (for the moment) beyond science's help. So the Church is left with the scraps that fall from science's table.

Not only is the location of the skull ironic, it is also illustrative of a misplaced interpretation of Descartes since the skull may not be Descartes' at all. Descartes died in Stockholm in 1650. In 1666 his body was exhumed and taken to France (after the French ambassador had removed his right forefinger, an event Gaukroger cannot resist referring to as the taking of a relic [Gaukroger, 1995, p.417]). But there is a possibility that a Swedish soldier removed the head and that it was sold several times before finding its way to the Musee de l'Homme. When the body was exhumed
in 1819 no skull was reported to be found. This report however came from the man who sold the skull to Cuvier who put it in the museum (Gaukroger, 1995, 417). There is then at least some doubt as to the truth of the story and the authenticity of the skull. What the world counts as being Descartes' skull and hence Descartes, may in fact not be. In a similar way what the world takes to be Descartes' philosophy is a doubtful representation.

This illustration is joined by another irony. The skull is taken to be an authentic representation of Descartes. This is because it was the container of the brain, which is taken to be the source of his philosophical power. What makes this ironic is that for Descartes, the brain was simply a part of an organic machine with which his soul was intertwined, and would then be no representation of his philosophical soul and power at all. Those who sought to honour him and his achievements by placing the skull in a museum in order to represent him, have taken his material remains to be a better representation of him than his extant writings (which are, in Descartes' terms, a much better representation of his soul than the skull or brain since they are an expression of his thought). This irony is deepened since, for Descartes, the body and soul are so conjoined that both are needed in order to do philosophy. We need the body to give us empirical particulars, while we need the mind to think these particulars abstractly and universally. In imagining Descartes as being a radical dualist who places the mind on one side and matter on the other, they have put consciousness on one side on an ontological rift, and the body on the other. This means that they have reduced Descartes' philosophical self to his spirit and so have made his philosophy impossible as the mind could not have had access to the world it is supposed to philosophise about. As we will see however, this move is based on an important aspect of post-Cartesian culture, and not on Descartes himself (Chapter Eight). So to return to our starting point, even if the skull we have is Descartes' skull, then it is not Descartes according to Descartes' philosophy. This is a picture of the
fate of Descartes' thought. What is taken to be his philosophy is not in fact what he believed. Those who honour him misrepresent him in the act of honouring him.

It will be useful here to insert Einstein's brain into this discussion of Descartes' skull. Roland Barthes' analysis of the mythic character of Einstein's brain helps us to place what happened to Descartes' skull. Through the various representations of Einstein's brain we can see the cultural role it plays. Popular representations reduce Einstein's mind to his brain so that his thought is reduced to a purely 'machinic' function.

A photograph shows him lying down, his head bristling with electrical wires: the waves of his brain are being recorded, while he is requested to 'think of relativity'... Thought itself is thus represented as an energetic material... The mythology of Einstein shows him as a genius so lacking in magic that one speaks about his thought as of a functional labour analogous to the mechanical making of sausages, the grinding of corn or the crushing of ore (Barthes, 1986, pp.68-69).

However this non-magical machine produces things which are much like magic. In photographs Einstein is seen in front of a blackboard which is covered in equations, but in cartoons he is shown 'chalk in hand, and having just written on an empty blackboard, as if without preparation, the magic formula of the world' (Barthes, 1986, p.69). So the reduction of Einstein to his brain, to pure material functionality, creates for the culture, the image of the magical production of a material genius. The key to the universe, $E = mc^2$ springs like a god from his forehead. Yet despite the quality of his productions he also ultimately fails in his attempt to develop a unified field theory.

In this way Einstein fulfils all the conditions of myth, which could not care less about contradictions so long as it establishes a euphoric security: at once magical and machine, eternal researcher and unfulfilled discoverer, unleashing the best and the worst, brain and conscience, Einstein embodies the most contradictory of dreams, and mythically reconciles the infinite power of man over nature with the 'fatality' of the sacrosanct which man cannot yet do without (Barthes, 1986, p.70).
This reaction to Einstein's brain would not be possible without Descartes. The very idea of a researcher like Einstein would make no sense without Descartes, who discovered and presented what could be accomplished using method. Descartes also introduced an ethic into scientific research which meant that the scientist should never try to dominate either the earth or other people\textsuperscript{1}. It was Descartes who brought into scientific triumphalism the idea that nature resists being reduced to the categories of reason (Chapters Seven and Eight). It is also Descartes who reduces the brain to a machine, but then adds the unseeable, ineffable and spiritual to this machine by mixing it with the soul (Chapters three and Eight). Ryle's characterisation of Descartes' dualism as the ghost in the machine is misleading. A ghost is disembodied and only coincidently related to any body they are in. For Descartes the soul is with the body and the body with the soul, one is not simply a categorically inappropriate container of the other.

The dreams of our time have their origins in Descartes. Many interpretations of Descartes create myths about him as he is the father of many of our myths. Descartes is always either too modern for his own time or too premodern for ours. It is more accurate to say that by his belief in a discoverable truth, but his refusal to extend this to the limits of the human imagination, Descartes has always been out of step with the world he helped to create. Descartes sets up the criteria of modern myth, but in the process finds himself transformed by this world into a ghost long gone from its container (Chapter Six).

\textsuperscript{1}Descartes is also like Einstein in his ethical considerations. Descartes placed an ethic within philosophical and scientific research which, unlike Bacon before him, and Kant after him, said that we should never just assume that the earth is there for our use (1970, p.283). This very modern idea was largely lost in the enlightenment, as they strove to master what they took to be one of the greatest blockages to humanity's attempts to be happy: nature, the conquest of which represented the conquest of disease, famine and manual labour. However, Descartes' ethic is based on our humility in God's universe. We should not think of the earth as our 'chief home' as this makes us think that the universe is made for us, and that all creatures are inferior to ourselves. We should not think of ourselves as God's most vital concern (Descartes, 1970, p.283). As we will see in Chapters Eight and Nine, as in the environmental issues in this case, the rejection of parts of Descartes' system, while embracing others as necessary to our universe, leads to tensions throughout modernity.
Descartes' skull is on display as is Einstein's brain (Barthes, 1986, p.68). The presence of Einstein's brain shows the mechanical nature of his thought. But why do people look at Descartes' skull? Both literally and figuratively, what do they see in it? There is no mechanism to be seen, merely an empty skull: an absence container. 'The eyes are the window to the soul', and the eye sockets the window to the brain. Looking through Descartes' eye sockets we see the absence of both brain and soul. Obviously even if Descartes' brain was on display the soul could not be seen, for it is immaterial. In looking through Descartes' eye sockets we find the absence of mechanism. And yet this absence is suggestive of the presence of his soul, that which cannot be seen whether it is present or absent. So we see in the case of Descartes, that the mechanism of thought is not to be seen in the brain but in the space which defines the absence of a brain. Descartes is revered as being the father of modern thought, the one who made it possible. Consequently Descartes' philosophy is thought to clear a space in which modernity may exist. All of the technological and theoretical mechanisms of modernity dwell within this space in Descartes' skull. Rather than the ghost in the machine, we find that the machines are in the ghost. Einstein's brain gains its mythic meaning in Descartes. When we look through the eye sockets of Descartes' skull we see Einstein's brain.

As the idea of modernity will play an important role in this thesis, we will need a working definition. Since the nature of modernity is a thesis topic in itself, the definition given here will be as general as possible while still being of use to the reader. Advance apologies then for the very broad and hurried canvas about to be painted.

The most obvious thing about the term modernity is that it is a temporal term. The simplest place to start from is then with the historical conditions that led to modernity.
By the time that people started to call themselves 'modern' and the period they lived in 'modernity', the conditions which led them to thus describe themselves had existed for some time. Modernity is culturally located in the rejection or acceptance of the ideas and practices that went before it and the acknowledgement of what is 'now' (in modern times) possessed. But there is not a single event or movement before which everything was pre-modern and after which it was modern. Modernity had been developing for a long time before it was announced as modernity. There were a number of events and movements which introduced the different elements that would be recognised as basic to modernity. As each element was added western culture became increasingly 'modern'.

The most important events or movements which led to the self-definition of modernity were: 1. Humanity becoming the central cultural subject through the Renaissance; 2. The idea of the priesthood of all believers in the Reformation, which meant that each individual was responsible for their own relationship with God and the interpretation of scripture. This meant that each person was responsible for their own spiritual destiny, for the meaning of their own life; 3. Galileo's displacement of the earth from the centre of the universe seemed to displace the earth as the centre of meaning in the universe; 4. Although this thesis will argue for a more subtle interpretation than the following, Descartes' 'I think, therefore I am' was taken to make the individual's capacity for thought into the foundation of knowledge; 5. The rise of science, especially after Newton, gave humans the ability to increasingly understand and control the world, thus making humans apparent masters of nature; 6. This same science allowed human bodies, minds, societies, cultures, economies etc. to be increasingly understood and so mastered; 7. The mathematicisation of science gave
scientists an objective language of description, which enabled experiments to be repeated, and for experimental instruments to be standardised. This allowed for the repetition of experiments anywhere in the world. This gave a reliable and communal way to test hypotheses; 8. The need for clarity in science, the influence of Descartes' demand for clarity and the development of logical validity by Leibniz, added up to the demand for clearly defined terms and ideas; 9. The American and French Revolutions showed that political power could be taken from colonial and aristocratic rulers and given into the hands of the people (well some of them anyway); 10. The Industrial Revolution and the rise of the nation state centralised bureaucracies and education system. This produced an expanding middle class and provided markets for an ever increasing set of competing products. This market allowed the self to be increasingly defined in terms of the things it buys and the things it could afford to buy.

As each element was added modernity developed further. But not everyone took up every development and not every element brought the same developments in everybody. So modernity includes a great variety of doctrines and life-styles. It includes not only those who embrace the positive consequences of these (and other) events, but also those who react negatively to them. This is because their positions are reactions against these developments. In the west, only those who ignore modernity may be said to be outside of it. However because the world has changed at such a basic cultural, technological and economic level, one cannot avoid the changes simply by ignoring them. To avoid them one must reject them and to reject them is to define oneself by the modern elements that you reject.
Modernity may then be said to be that set of doctrines and living conditions that come out of the particular set of social, political, cultural and economic circumstances denoted by the developments listed above. These developments may be boiled down to several themes. The first two which concern us are related and yet seemingly contradictory. They are the rise of individualism and the rise of corporate ways for the individual to define themselves, such as nationalism, and an increasingly aspirational view of class based on economic success, education or profession. These two factors make identity, the nature of the self, and the nature of the state central to the interests of modern discourse.

The other major theme is the attempt to bring essence together with existence. With science as a model, material descriptions of things and events were sought. The essence of a thing, which had been thought to dwell in a thing and determine that things nature or represent its pure rational concept, came to be thought of as what a thing was merely as it existed in material terms. Now whether this reduction was done to try to find the essence in material existence, or else to eliminate the idea of essence in favour of a material description, or to reject scientific reduction and bring existence back to essence, it is the same basic process going on. So to look at an apparent counter example, (to make a generalisation, perhaps even an outrageous one) the search for the soul or spirit of the individual or the people or the universe may be seen as the central interest in romanticism. Romanticism in many of its guises sought to find a way that was not dependent on scientific or logical reduction in pursuit of the spiritual essence of a material thing in order to show that the thing’s materiality is spiritual. That is, its existence is its essence, it is as it exists.
Hand in hand with this rejection of ontological transcendence is often the need to find a transcendent experience *within* this world. Aesthetic expression indicates something outside of the purely logical and material, while aesthetic experience gives us that which cannot be reduced to science, even though our universe and society can be. For many, artistic creation becomes a metaphor of the individual’s creation of their own lifestyle and belief system. Modernity then strives to find meaning within a scientific universe. Whether this is in the form of taking on the identity of someone who bravely faces up to the meaninglessness of the universe, or someone who rejects science and technology in favour of an intuitive or faith based way of life, or some other more moderate position, what they all have in common is the need for a firm foundation so that we may be satisfied that they are correct (or at least that others are incorrect). Whether they look to scientific practice, scientific data, intuition, faith, or reason they seek to show that what they believe is the case. Even for those who deny the possibility of establishing foundations or finding certainty do so on the basis of their analysis of the nature of knowledge and/or the world and/or the problems with foundational arguments. So while it is understood that modernity contains many opinions, for the purposes of this thesis, when modernity is said to do or think something it refers to those themes which are the result of the positive or negative reception of the events listed which gave birth to modernity.

If Descartes has been misinterpreted how do we try to read him without the demands of our mythologies getting in the way? Of course this is not completely possible. We do however live at a time which has seen modernity intensely subjected to criticism. Through the postmodern critique of modernity we may come to free Descartes from some of the concretion that has accumulated on his doctrines. Paradoxically this also rebounds back onto postmodernity since for the most part it accepts modernity’s
interpretation of Descartes. By helping to free Descartes of the interpretations of modernity, postmodernity frees Descartes' doctrines to be used critically against it.

In trying to understand Descartes, it is helpful to try to read Descartes in the context in which he wrote. Before we can say what he wrote and what it meant we must first try, within the hermeneutical limits set by the difficulties of establishing authorial intention and the historical limits of trying to understand an individual by looking at his society, culture and the important political, technological and economic events of his time, to discover why he wrote. This enables us to see that in his reaction against scholastic logic he came to favour a more naturally motivated reason. If this is not understood, then many of Descartes' arguments which are based on this method will make no sense at all. In taking this into account we will discover that we cannot simply take him and his arguments to pieces in terms of either modern or scholastic logic and suppose that we have understood him. Descartes' arguments do not only operate on the level of strict logical deduction. His arguments assume, as we will see in Chapters One and Four, that we will partake in a process of experiencing rational thought and not simply of walking through a cold logical procedure.

Descartes' philosophy does this because it is trying to find a way to get beneath the scholastic philosophical tradition that stood in the way of scientific progress. By looking to an experience which anyone can have despite the tradition that they belong to, Descartes hopes to be able to introduce a philosophy based on evidence that is available to all, and not deniable by any. The extent to which he succeeded is shown by the place he is generally given as the father of modern philosophy. In his approach we can clearly see the double nature of philosophy. Descartes is being both the champion of the individual's struggle to discover the truth as well as being the founder of both a philosophical school and a philosophical era. From the moment when the term 'philosophy' was coined it has had a double nature. If Socrates invents the term philosophy how can there be pre-Socratic philosophers? Philosophy
is always both the practice of individuals simply trying to understand the world for themselves who neither seek nor need a title, and it is the tradition and/or profession of a group of self-acknowledged philosophers. This double nature is not merely an abstract quality of philosophy but it is present in practicing philosophers. To be a philosopher is to be a seeker after truth and/or clarity and/or meaning and/or justice and/or freedom etc. It is our personal struggle to understand and/or discover. But our endeavours are never as pure as this. We are reacting from a tradition and to a tradition. As philosophers, we understand ourselves in either positive or negative terms in comparison with those who came before us. In Descartes this distinction bears particular fruit since the tradition he founds is one of the free exploration of truth which refuses to take tradition as a guide. As we will see throughout this thesis this apparent contradictory characteristic of Descartes' philosophy will lead people away from Descartes even while they believe that they are understanding him more fully. In Parts Two and Three the causes and consequences of this movement are examined. This double aspect of philosophy is a crucial factor in the misunderstandings that haunt Descartes scholarship.

b) Metonym and misunderstanding.

Descartes is the father of modern philosophy ergo he is not a child of modern philosophy. Descartes laid the foundations for modern thought, but modernity reads Descartes either as if he too were modern and a bold scientific warrior, laying the ground work for a new physics, or else as if he were simply pre-modern and a radical scholastic and/or renaissance figure. We then find that those who read him as modern upbraid him for using arguments which, we, that is we moderns, can see are clearly incoherent or at least stretching logic beyond its normal tolerance. In contrast to this attitude is that of those who read him as an amalgam of scholastic and renaissance ideas and arguments, riding the coat tails of Galileo, whose only truly
modern contributions were the idea of truth as certainty and of *Cogito* ergo *sum*. Thus his philosophy is thought of as being subservient to these aims and ideas, rather than his ideas forming a uniform new idea of the universe. These attitudes miss what Descartes was trying to do and the way that he was trying to do it. They do however indicate the tension which Descartes' ideas hold for modernity.

Modernity is keen to eliminate what it sees as pre-modern in Descartes while at the same time accepting the contribution he has made to founding modernity. But as will be argued throughout this thesis these two elements in Descartes' thought are not so easily reducible to the modern or pre-modern, nor can they be so easily disentangled. As a result modernity, which in so many ways begins with Descartes, finds itself in a continual movement to catch its tail as it tries to retain itself as modern while rejecting much of what made it possible.

Hence, there are in modernity a number of misunderstandings which plague discussions of Descartes. This is not an isolated issue of historical scholarship. It effects the fate of modernity. For since Descartes helps lay the foundations for modernity, modernity's misunderstanding of Descartes leads modernity to misunderstand itself. This then has the further consequence that if modernity misunderstands itself because it misunderstands its foundations, then post-modernity has misunderstood the modernity it attacks, and as this thesis will attempt to show, instead of catching modernity at its foundations, it revives, reshapes, reinterprets and reintroduces some of these foundations (Chapter Six).

It is easy to say that modernity misunderstands Descartes because it tries to categorise him too simply or reduce him to the logic of his arguments, where the logic

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2 Throughout this Thesis *cogito* will be given in italics as a reminder that what Descartes means by it and what is usually meant by it are two different things.

3 Because this thesis will be spending a lot of time defending Descartes against misinterpretations, it may sometimes seem that I am defending the doctrines which I am merely trying to expound. It is not my purpose to defend or criticise Descartes' doctrines, simply to understand them and their implications for, and interactions with, modernity.
is not understood in his terms. But once this is said then we need to ask the question, 'Why should modernity do this'? Are the thinkers and historians of the past just not as bright as we are? Clearly this is not the case. Much of this thesis will be devoted to answering this question. The answers will range from the general to the historical and the textual. The general answers could be relevant to the reception of the ideas of any original thinker. From an historical point of view we will try to see what it was about Descartes position in the movement into modernity that leads to him being so consistently misunderstood. Finally we will try to understand what it is about the methods and arguments Descartes used which contributes to his being misunderstood. Some of these answers we will not be able to give until we have re-read some modern, post-modern and post-structuralist thinkers in the light of what we will learn about the sources of the misunderstanding of Descartes. This will enable us to re-read Descartes through this new understanding of these thinkers.

But before we deal with the 'whys' of the misunderstanding of Descartes, we should first have some idea of what form this misunderstanding actually takes. Our starting point will be the metaphor of Descartes' skull. The skull, as part of the body, shared in the possession of the soul and was part of the thinking process (long before Nietzsche had celebrated thinking with his entire body, Descartes had lamented it). It was merely a part of the whole, a whole which extends beyond what we can see of the extended body. The skull could act as a metaphor for the misinterpretation of Descartes' work because its physical location in a museum and its dislocation from his body drew together the conflicting forces and elements involved in the interpretation of Descartes. The metaphor may have reached its limits however the figurative use of the skull is not exhausted. Given the nature of the union of mind and body in Descartes, the skull could be said to represent Descartes metonymically. Indeed, no matter what understanding of his thought those who placed his skull in the *Musee de l'Homme* had, the form of representation can only have been metonymic. It is neither the body, nor the mind, but merely something physically related to them.
The metaphor was a useful trope that was used to bring out the relationship between Descartes' doctrines and the modern understanding of them. The metonym is, however a practice carried out by modernity itself. While this reductive tendency is single, its causes are many, and complex. For the moment metonymy will serve as shorthand for many processes and causes. This will enable us to see the effects of reductionism without having to analyse each part and try to locate its history. This metonymic post-Cartesian move is at one with the process of reduction and simplification which much of modernity carried out. The role of metonymy in giving meaning to the skull is quite clear. We cannot exhibit Descartes' soul, and yet we want to be in touch with the real Descartes. So his skull comes to be Descartes for us. It is tangible and represents Descartes, his body and his thought and therefore his philosophy. The same process occurs throughout modernity. Modernity most often favours the tangible, the physical, and the externally demonstrable over the elusive, the immaterial and the experiential. An example of this process is the way that modernity repeats the dogmatic scholastic practice which sees reason become reduced to the strict laws of logic. The kind of logic that can be learnt from a text book where every step of the reasoning process can be written down and tested: a mechanical process that a computer could be programmed to carry out. (An interesting companion of this is the rigid [though not static, as too many post-Hegelian historians of philosophy assume] logic of early medieval Platonic cosmology which created a geometrical ontological system of interrelated essences whose particulars could not be predicted from the system, but could be defended once the essence of something had been suggested and the particular analogy officially established [Brandt, 1973, pp.33-42]). For example Leibniz criticised Descartes' method because of its lack of "palpable," "mechanical," criteria (Gerwith, 1970a, p.251). In a similar way, socio-biologists try to reduce behaviour to genetics, some psychologists try to reduce the social to the individual and certain sociologists try to
reduce the individual to the societal⁴. This metonymic reduction⁵ indicates a preparedness to reduce complexities that exist in a multi-levelled situation to the simplicity of a single well understood or mastered discipline. Even when a discipline is new and is still finding its feet and is not well mastered, if a phenomena can be reduced to a single set of problems, method or criteria it is made much easier to deal with.

Another reason for this metonymic tendency is that for many of his contemporaries there was too much science in Descartes' philosophy, while for us there is too much theology. For Descartes however they complimented each other perfectly. As we will see in Chapters One, Two and Five, Descartes is not opposed to tradition, but rather to tradition that is unfounded or institutional and so blocks access to truth. We can then say that in moving against scholasticism, Descartes need not be moving against a God centred world and toward a human centred world (since for Descartes the old universe was not God centred but rather Church centred) but rather that Descartes wants to move us into a much more God centred universe. Unlike most of his contemporaries as well as his followers, Descartes believed that the structure and laws of the universe were not necessary. For him it was God who determined what was possible and impossible and what was logical and illogical (Lennon, 1994, p.20). Most Cartesians however rejected this idea, believing that the laws of the universe were necessarily necessary. It follows that for them there can be no other universe but this one and that God is subject to its laws in as much as he has no choice but to create them as they are. This inevitably leads to the loosening of the ties that bind the world to God since the laws exist eternally whether there is a God or not and whether there is a world or not. This leads modern readers to suppose that

⁴Another example is that of the behaviourism of Watson or that of Skinner. In them, consciousness becomes an epiphenomenon of chemical processes, a mere by-product, the reality of which are behaviours, and not thoughts. What Peter Kreeft calls the fart theory of the mind (Kreeft, 1984, p141).
⁵These metonymic moves may work either 'downwards', towards the more concrete or 'upwards', towards greater abstraction, as the German Idealists did.
Descartes was simply using God in order to make his system work. They read Descartes as if God is purely functional and is the least important part of his philosophy. The next step is to say that God is unnecessary in a philosophy adequate to the world. The genesis of this idea then betrays a Cartesian⁶ desire to be as God, and have power over the world. This unsurprisingly leads to the end of God and hence also the end of Cartesianism. For if God is no longer needed then the cogito is the starting point of atheism and not of theism. What we then discover is not a world ordered by God for us to discover, but a universe in which the world imposes itself on us. The cogito becomes subject to the object and the world, and our essence is not then freedom, but is bound by the laws of the world. Hence a Cartesianism that expands humanity to the position of God leads to the death of man which Foucault spoke of at the hands of an all-embracing science (Chapter Seven)(Foucault, 1973, pp.386-387).

Descartes opposed the idea that the structure of the universe is necessarily necessary. This idea closes down not just this universe, but all possible universes in the bonds of logical necessity. This logical reduction is literal. It reduces the Logos that God spoke to bring the world into being, the Logos which the Bible, (and hence the pious Descartes) equates with Christ, to be institutionally sanctioned logic. It is then perhaps no surprise that the deists and atheists of the enlightenment sought for salvation on earth in human utopias brought about through reason. Descartes, by contrast, was attempting to keep the universe open and irreducible. God's freedom gives humanity its freedom, its ability to imagine and create what is not, but could be (Chapter Three). In such a universe - a universe that resists reduction to any single essence or idea - our intellect can never be completely in command. We are limited by our natures and by the nature of the universe and by God's infinity. Our limitations mean that no one can ever deliver the universe to us in a neat package, one can

⁶Throughout this essay Cartesian will indicate Descartes' followers and not the thoughts of Descartes himself. Post-Cartesian, following Bordo (1987), will mean the world as it is after Descartes. In other words the world Descartes made possible.
never wholly control reason and truth. In contrast, the later Cartesians, who say that God had to create the world he did, are in the position to say that our reasoning is as good as God's since we can detect the same necessity as God can. It is this which helps to propel modernity into a human centred world.

Now if we suppose that this universe is human centred there is no reason to suppose that there should be any lacunae, or blockages to knowledge. This idea is carried through to the dominant tradition in the enlightenment which believed that human reason was the key to solving the problems of human existence. All that was necessary to discover the truth is that we have the right foundations. If we have them, then in principle, there should be no gaps in the knowledge we build on it. This however opens up a continuous gap within enlightenment thought. The actual foundations which Descartes laid were based on an irreducible universe where God's thoughts are necessary in this world but not in every world. Hence we may imagine things which do not and cannot exist in this universe. The limits to knowledge which are necessary in a universe where our physical nature and intellectual limitations prevent complete knowledge, mean that we should never get carried away with our claims to knowledge. These claims in any case, as we will shortly see, are based on an intuitive union with the ideas of God, and not on sensuous or logical evidence (Chapter Four). Descartes denies that we can blaze an autonomous trail of human knowledge. The claim to self-evident knowledge as a firm foundation is dependent on the existence of a perfect creator. To proceed on the basis of the idea of firm foundations without having secured the foundations of those foundations is to find oneself with either no secure foundations, or else the pragmatic foundation that comes from the power of science, or of the institutions which claim mastery of reason and its various discourses. If we reject transcendent truth and power while maintaining a commitment to self-evident truth then we turn that which takes the place of transcendent truth, the demonstrably evident, into the equivalent of the self-evident. This makes those carrying out these demonstrations into the receptors of
truth for the general populace. (In Chapter Six we will see more of how this process began in Descartes' discovery and presentation of the cogito). The end of God leads to the reign of gods.

Hence this metonymic process, which here results in the joining of knowledge and official knowers, has both a cosmological and political edge. The subject thus takes centre stage in both the political and cosmological. So it is important to be clear what Descartes understands the self to be. This is a complex question and will be discussed in detail in Chapter Eight but will be a theme throughout the rest of the thesis.

Hiram Caton, whose article will be examined more closely later, says that Descartes' big mistake was in departing from the Stoics in his attempt to find mastery over nature. Caton argues that Descartes accepts the Stoic idea that to know that something is true is to accept what nature shows us through how it has structured our mind (1975, p.103). The problem, Caton says, arises because Descartes is also trying to dominate nature. These two contradictory ideas about nature have produced 'the result that philosophy finds itself once more in the lap of faith, even if a secular faith, as Karl Popper, among others, indicates when he admits that his

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There are alternatives which try to maintain the intuitive outside of Descartes' universe. Both in its early realist phase as well as in its post-Russellian developments, many epistemologists have used the idea of some intuitive or self-evident starting point for knowledge. Collingwood points out, against the early realists he was taught by, that this intuitive union between a thought and the mind can only amount to knowledge in the most inane situations, 'where familiarity with the mental operations involved has bred not so much contempt as oblivion' (Collingwood, 1978, p.26). Without a clear method and analysis of situations the sense of knowledge that is produced is merely one of the inability to feel that you are anything but correct (Collingwood, 1978, pp.22-28). Once intuition has been naturalised it ceases to have value. In more modern times much epistemology has depended on what Plantinga calls internalist accounts of knowledge. In these accounts the knower can know in some special way that they have access to knowledge or else that they can know when they can know that something is justified. The principal problem with these accounts is that they cannot find a way to justify their own method in relation to the external world (Plantinga, 1993, pp. v-viii). Your own access to the conditions under which you make judgements is no guarantee that they are correct. Both the earlier and later positions founder because their foundation for knowing is not founded on something beyond question and so the basis of justification is inherently unjustifiable.
rationalism "rests on an irrational faith in the attitude of reasonableness"\textsuperscript{8} (Caton, 1975, p.103). Since, as will soon be made clear (Chapters One, Two & Eight), Descartes does not rely on nature for the veracity of his beliefs we must look for this gap in the use of reason in another place. The gap of faith opens because for Descartes you need both God and reason/science in order to have a complete system. This is because Descartes' system demonstrates truth subjectively. We do not refer to some abstract scheme like logic to find truth but rather to our experience of the truth. It is God that guarantees this subjective experience as the truth. But God is himself the ultimate subject. For Descartes God is not a thing to be discovered, nor another item in the world, nor a function in his system. The world is God's and we are His. It is his thoughts we discover as we discover truth. Knowing God's essence tells us that he is the object of praise and far beyond our comprehension, not an object in the world whose comprehension leads to our claim to be worshipped. His will is always truth, because it comes to be in this universe. Any attempt at a self-justifying 'objective' belief, where objective is understood as abstract and externally demonstrable, must fail. Objectivity for Descartes is simply being one with God's sovereign subjectivity. Due to their mutual histories it is difficult to understand the objective apart from the subjective (Williams, 1988, pp.308-312). Those cruder forms of objectivism which claim to gain knowledge completely free of subjective influence fall foul of this connection, which, at the least, must acknowledge that if the objective is to be known to be objective, then there must be a subject to know it.

To put it briefly, for Descartes the attempt to achieve pure objectivity does not grasp the world objectively, it rather naturalises its assumptions and preconditions and so objectifies the subjective, making the objective a hidden extension of its suppressed subjective bias. In other words, if we imagine that we can observe purely with no

\textsuperscript{8}Perhaps this is why later epistemologists have moved to internalist accounts of justifying knowledge, as it gives them an alternative to 'irrational faith'.

subjective elements involved, we are involved in both an illusion and a contradiction. We suffer from the illusion that that network of beliefs which we have, which lead us to believe that we can observe purely objectively, is not operative when we claim to observe purely objectively. We are involved in a contradiction since the possibility of claiming to be able to be purely objective is only open to subjects, and is a function of subjectivity. To be objective in any sense requires us to be subjective.

To put this in a different way in regard to philosophy, consider Berdyaev's perceptive comments on metaphysics and ontology.

Metaphysics is rather apt to hypostasize concepts, and then to interpret them as if they were being. The aim of ontology is to discover objective being. But it actually discovers an objectified concept; it perceives an objective being which is the product of its own elaborated concepts. Thus ontology appears to be able to apprehend only a conceptual and already rationalized being (1939, p.3).

Now Descartes never confuses concept and reality. He maintains the separate existence of a thing's essence and of a thing's thingness. An individual piece of wax has its own shape, size, texture, hardness etc., but these are different from the idea, or essence of wax, which is what one must come to know of wax in order to truly know wax. But the two are not reducible to each other. A thing's essence is not equal to its existence. An objective individuality, is for Descartes, defined mathematically and is then changeable, but the essence is not changeable, or accessed through either the senses or mathematics. One must have both in order to understand an individual piece of wax properly. So, for Descartes, being cannot be reduced to concepts. As a consequence, while we may be able to make clear distinctions between mind and body (Chapter Eight) and between will and understanding (Chapter Five) in terms of essences, this does not mean that we can make such distinctions in terms of lived reality. Mind and body are so combined that they influence each other greatly, while will and understanding are distinct and yet work through each other. The refusal of Descartes to reduce the world to essences
means that the universe will always be much more complicated than logic and universal concepts would like it to be. Essences can found a system of true knowledge, but they cannot be that system, for they are eternal, while the world changes. As soon as you try to reduce the world to ideas then the world is lost, for the complexities, imprecisions and confusions that are necessary in the world are gone. So for Descartes, in order to have firm foundations for true science, and true knowledge, you must accept that there are limitations to knowledge, and that while we may find essences, that we do not live as essences. For those who came after Descartes, who tried to reduce the world to ideas to eliminate these limits and complexities, Descartes' world was lost and so was Descartes' idea of true knowledge. For Descartes, in order to have true knowledge you must know the limits of knowledge that is the kinds of things you cannot know and why you cannot know them.

Post-Cartesians saw the fulfillment of Descartes in the search for clarity in all things, leaving behind the idea that the structure of the universe is necessarily epistemologically limiting. For most post-Cartesian thinkers, the dream of complete knowledge did not include the idea that we could know that there were some things which we could not know and why we could not know it. As we will see more fully in Chapter Six, the nature of philosophical subjectivity often involves the search for the new. The tradition they refer to is certainly in line with that which Descartes begins. And yet if one understands oneself as a Cartesian philosopher then one already has a commitment to a particular set of doctrines or practices. How then can one be both a philosopher and a follower? The answer is often that one takes the insights of the master and pushes them through the master's work looking for inconsistencies and weaknesses. The end of this process is what the disciple thinks of as a more faithful, because more self consistent, version of the master's system. Again, to anticipate Chapter Six, philosophical concepts, in the sense Deleuze and Guattari give to them, are held together by personal insight and not by logic. They can be expressed in
logic but are not fully reducible to it. This understanding of the philosophical concept is very useful as it will help to bring together for us the philosophical positions of postmodernity and Descartes.

It is not only the case that those who demand closure often find themselves with hidden gaps. Those who embrace the gaps will often find it hard to control their speculations. Hegel criticises the romantics for rejecting clear thought and being satisfied with 'the bare feeling of the divine in general' (Hegel, 1977, p.5). Such thinking clouds the world in a heavenly fog, so 'in order to pursue the indeterminate enjoyment of this indeterminate divinity, [he] may look where he likes to find all this. He will find ample opportunity to dream up something for himself' (Hegel, 1977, pp.5-6). Now we may be like the post-modernists and reject both positions. As Tomlinson says,

The post-modernist does not 'suspend' truth for 'romantic' or 'irrationalist' reasons - such attitudes are simply the other side of the coin of truth. Rather, the post-modernist 'takes truth seriously' and tries to make sense of it. He [sic] carries out an 'internal critique' of 'truth' itself. It is not that 'truth' ought to be rejected in favour of something like beauty or intuition but that the disciple of truth, the rationalist, cannot give a coherent account of it in his own terms. Thus in one sense the post-modernist is a super-rationalist: if we take rationalism seriously it cannot measure up to its own standards. As Nietzsche says, it is truthfulness which destroys our belief in truth - 'truth kills, kills itself'. This is the 'negative' side of post-modernism (Tomlinson, 1989, p.44).

This postmodern rejection of both approaches to grounding knowledge opens the way for a concentration on the text as object since it is a cultural product which does not immediately involve ontological questions, but rather opens up ontology and epistemology as texts and parts of discourse. This also means that epistemological gaps are not resisted, but are also not deified. The principle postmodern theorists like Foucault and Derrida do not completely reject truth and the transcendent realising that they cannot be eliminated (Connolly, 1995, pp. 35-36). They embrace
ambiguity and write with ironic awareness that they cannot fully escape what they attack and that they cannot have full confidence in their own methods of critique. (This has not always been the case with their followers who take as their authority these thinkers' critical and often anti-authoritarian writings). This is combined with a rejection of the kind of authority which is founded in either faith or reason. This manifests itself as a resistance to those totalising discourses which legitimate those who hold their views while imposing these on others. These are seen as the sources of terror, of Nazism, Stalinism, and the inquisition. But these ideas are not new to post-modernism. Descartes also rejected such authoritarianism and such totalisations. We should not then be surprised that postmodern attacks on Descartes, based on the assumption that he is an enlightenment thinker who champions the absolute, find themselves undermined by Descartes doctrines (see Part Two).

c) The Argument of the Thesis.

The argument this thesis will pursue is in three parts. The first part will be chiefly concerned to establish that Descartes has been misunderstood by modernity. The second part will attempt to give some of the reasons for this misunderstanding while Part Three will try to suggest some of the consequences of this misunderstanding.

In Part One, Descartes' position on key issues will be presented and contrasted with popular modern interpretations. The focus will be on Descartes' understanding of reason and reasoning as this contrast best brings out the differences between Descartes' views and those of his contemporaries as well as those of modernity. What we will see is that Descartes is not just putting forward another set of doctrines, but is providing a new way to be in the world. This new way stands in contrast with both the world that went before, which he was writing against, as well as the world
that came afterwards. This latter maintains much of Descartes' basic world view while rejecting many of his doctrines.

Chapter One attempts to find the context in which Descartes wrote and so to come to some conclusions about why he wrote. This provides us with a way of contrasting what Descartes was doing and the practices of his scholastic and Renaissance predecessors and contemporaries. The contrast between Descartes' understanding of reason on the one hand, and both the scholastic reliance on logic and the Renaissance/medieval use of analogy on the other, provides a particularly telling example of these different universes at work. Descartes needs to be understood in terms of his struggles to find a way to discover a truth which went beyond the dogmatism of scholasticism and was more naturally motivated. He had to find a way to touch the truth that logic had obscured; and more logic was not the way to do it. It required rational intuition, something that everyone could follow whether they were logicians or not. He had to take people on a journey from one kind of world to another. If we read Descartes as just offering a series of arguments we will not understand him. He wants his readers to experience a new world and not just to read about it. We need to see Descartes' writings in this sense if we are to come to terms with what appear to us to be very odd, naive or mistaken arguments. The decline of scholasticism, the medievalism of everyday people and large numbers of the clergy, the pluralism of the Renaissance and the early stirrings of scientific achievement meant that the world Descartes was born into and wrote in was a culturally chaotic one. Given this historical situation it becomes apparent why Descartes sees the need for a radical re-examination of philosophy and the sciences. This re-examination leads Descartes to seek for nothing less than a reworking of the conceptual foundations of the world. What was needed was a way to deal with the competing forces that did not simply become another competing force, and which was not dependent on institutional or sectarian power, but which could adequately deal with ordinary life, science and religion. More than any other thinker of the time it
is he who tried to bring peace between the warring factions by drawing them into the one rational understanding of the universe. He took the chaotic universe, which had no adequate criteria for deciding between knowledge claims and offered a way forward which many found compelling.

In a similar fashion, Chapter Two contrasts Descartes with modern ways of thinking. Following Susan Bordo we will see that our understanding of the world contrasts sharply in many respects with that of Descartes, and yet at the same time these contrasts clearly come from within the same universe: Descartes' 'universe'. This gives the modern interpretation of Descartes a tendency towards ambiguity. This is because sometimes we will see Descartes as modern while at other times we will see him as premodern. These two aspects of his thought, which we define as modern and premodern, are not however inconsistent, they are vitally and organically linked to one another in Descartes. The new idea of the universe which he was trying to create must not be merely accessible to the educated, but must be independent of institution or authority. That which made this possible was the power of thought to discover the essential nature of a thing. The power of thought had the potential to break through all artificial barriers and false beliefs and false pride and to bring conceptual and epistemological unity to the world. In order to understand Descartes we need to see the arguments he produces in the context of the world he is attempting to produce and not try to make them make sense simply in terms of our own times. Chapter Two will try to accomplish this. Through Bordo we see that what Descartes was particularly concerned with was the possibility that we could be in such a state that we could not tell reality from illusion because the illusion was so complete we would have no grounds to suspect it. It is only after Descartes when this threat has been eliminated that the rational universe seems natural. A common modern reaction to Descartes' achievement in slaying the scholastic beast is then to assume that he is modern in the sense that 'we' are modern: that in fact Descartes set out with a modern attitude and so created modernity. In other words that the
principles of modernity are somehow natural and that their value can be realised simply through clear thought. This attitude is only possible by defining the pre-modern negatively, which then defines modernity positively. This does of course mean that the values of modernity are relative, defined in terms of their opposite, that is of the pre-modern, and not an absolute or natural position. Hence current interpretations of Descartes which start with an ahistorical Descartes will find themselves in trouble.

As, in the post-Cartesian version of Descartes, God is interpreted functionally, reason is reduced to logic and mind is sundered from body, Descartes' system appears less and less natural, and less true to experience. But this is the opposite of Descartes' intention, which is to provide a thoroughly convincing account of ordinary experience, which can also provide for certainty in science and philosophy. Descartes' theory of ideas is meant to be as natural as thought itself. We are not bound by preformed ideas into thinking anything in particular, we are free to get things wrong if we wish to. Further, we may imagine things that do not exist and find their essences and their truth. Those who make Descartes' ideas innate, in the sense of pregiven, but who also reduce reason to logic, make his world abstract and narrow. While those who demand that he be clearer about what he means by ideas have missed the context in which he is working. They have tried to move in a closed universe, one where everything is nailed down at the cost of adequacy to experience and hence at the cost of the potentialities of experience. If, in the pursuit of precision, philosophy does not reflect experience, then it closes the universe down by eliminating all the unpleasant aspects of subjectivity. We will see how these issues are played out in Chapter Three which will look at Descartes' understanding of innate ideas.

As we have already seen, Descartes is trying to bring unity through his philosophy. In his doctrine of innate ideas we see the way that the power of thought is able to bring us to be one with the essences of all that we consider deeply. The unity he is
proposing is not simply one between people, but one that is with the world and God as well. Chapter Three will look at this doctrine and a considered modern response to it. This chapter will begin by looking at Stephen Gaukroger’s account of Descartes which tries to understand him in the context of his time. The chapter will focus on Gaukroger’s account of Descartes on innate ideas. By seeing the way that this very good scholarly presentation finds it difficult to leave behind modern intuitions and to accept what today seems like a sloppy and ill conceived doctrine, we are able to come to understand Descartes’ account of reasoning more deeply. However, we also come to see that Descartes is not the only one whose doctrines need to be put in context. Descartes’ account of innate ideas offers modernity an idea of autonomy which is very powerful, and yet modernity refuses it. In considering this response to innate ideas we are brought to ask a question about modernity concerning its character and often hidden assumptions.

Chapter Four will attempt to answer this question in two parts. The first pushes our explanation of Descartes’ idea of reason even further: to the point where the unity with essences we discovered in innate ideas is found to be a deep, personal, visceral and semi-mystical union with God, the self and the world. The second part of the chapter explores the modern subject and, more specifically, the scientific and philosophical subjects and what it requires reason to be. It will be seen that the truly radical epistemological individualism of Descartes is incompatible with the form of autonomy required by the scientific and philosophical communities of modernity. The unity which Descartes was trying to establish begins to break down. While this provides the answer to the question of why modernity rejected the radical autonomy Descartes’ account of innate ideas offered to it, it also poses the question: why did modernity have the idea of autonomy which it did have. While this thesis cannot hope to give a full answer to this question, it can certainly attempt to show Descartes’ role in bringing this about.
In this chapter we will see that the reason that reason is so often reduced to logic is that philosophers are wont to turn reasoning into an objective 'scientific' process: one where any argument can be checked, if not for truth of its premisses, at least for validity. This is one reason that Descartes' process of reasoning has been both misunderstood and criticised. Some have read his arguments as if they were purely logical and so have found them to be logically invalid, while others have known that what he was doing was not simply logical and so have found his system to be invalid. Both are not comfortable with the idea of a system of reasoning with irreducible subjective elements. Descartes' system of reasoning is directed against Aristotelian logic which did not deal with the world anymore, prevented research and was bound by church dogma and power. Descartes wanted a system that could produce truth and not simply test for validity. As he pointed out (in different terms) formal systems like logic and mathematics, need to be founded in something that guarantees their validity, they cannot produce them themselves. For Descartes, subjectivity is necessary in any reasoning process. This resists the reduction to the externally demonstrable and so, from a post-Cartesian point of view, produces what look like gaps, but from Descartes' position it give the possibility of knowing truth. Descartes wants a guaranteed way to connect the world to thought - only a joining of subjectivities and essences can do this.

Part Two tries to answer the question why modernity accepted the concept of autonomy it did accept. It seeks for these answers by looking at the way modernity and postmodernity understand Descartes to be an enlightenment figure with enlightenment assumptions, and then seeing the difficulties which such an attitude produces.

Chapter Five will approach the question of autonomy through the examination of Descartes' doctrine of truth and error. This is helpful because it allows for the issues of authority and conviction, both crucial aspects of autonomy, to come into focus. The
chapter will begin by allowing some of Descartes' critics to attack his ideas as strongly as possible. By seeing how badly Descartes' doctrines fare when they are treated as enlightenment arguments we get a much better idea of how to understand what he says.

Chapter Six looks at the psychological aspects of entering Descartes' universe: its fears and promises. When we see the motivations behind this move, as well as the structure that Descartes sets up in order to move into his world, we realise the complexity that is involved in this act. We do not simply move into Descartes' universe. In order to be in this world we need to be transformed into a new kind of subject. But we are not the only ones who are transformed, Descartes also becomes another, either our representative or else the hidden god of certainty in the rational universe. It is these ideas which finally show us why modernity must take on the limited form of autonomy it does. We also come to see that this is an important factor in the misunderstanding of Descartes within modernity.

Part Three follows up what we have learned from other places and seeks to see some of the consequences of the misunderstanding of Descartes. By looking at the tensions which emerge in modernity because they rejects the ideas of God and of the soul while accepting the universe which they make possible we can see the importance of these ideas, and that in various forms, they will not stop bothering modernity in one form or another.

In Chapter Seven the place of God in Descartes' system is explored. It will be argued that God is basic to Descartes' position. Without God, the system does not work. But God is an organic part of the system, not an *ad hoc* addition to it. Descartes is not using God to solve otherwise insoluble problems, which leads him to other problems that arise from the way that the idea of God takes away from human autonomy and sets unnecessary limits to human knowledge. For Descartes,
whatever autonomy human thought has relies on God's benevolence, while the limits to human knowledge which God sets, holds back the hubris of the human will, and keeps us from idle speculation. Descartes holds God in too high esteem to see him as a thing to be used merely to plug epistemological holes. Since everything relies on him, his non-existence would renders Descartes philosophy pointless. Hence to use the idea of God merely to fill in gaps is to have the system rely on the possible non-existence of God and so to undermine any philosophy such a pragmatically functional God was created to support. The gaps which the existence of God creates in Descartes' system, Descartes counts as necessary to the foundations of philosophy. They are natural and irreducible characteristics of the universe. Chapter Seven will then follow Descartes' arguments for the existence of God which shows the central role which God plays in Descartes' system. Descartes' proofs are not simply designed to show that God exists but also to demonstrate our complete dependence on God, and just as importantly that God is independent of his creation. Since this both makes modern science possible but is unnecessary in physical descriptions of the world, this leads to a tension between scientific demonstrability and the certainty of reason. This tension extends throughout modernity.

God is of immense importance in Descartes' system, and so those who enter his universe but reject God may find themselves with some difficulties. Chapter Seven tries to see what some of them may be. What emerges is a dichotomy between reason and God on one side and science and external demonstration on the other. However neither side of this divide is independent of the other and so we find the unity Descartes was trying to create falling apart.

In a similar vein Chapter Eight looks at the vital role that the relationship between soul and body plays in Descartes' universe, and the consequences for this universe of modernity's rejection of it. We will see that the attempted reduction of this dualism will not make things easier. Rather, it will undermine our ability to have certainty.
For the vast majority of modern philosophers, the idea of substance, let alone the idea of an immaterial substance, is an embarrassment. If there were such a thing as a soul, then all sorts of other things like God, angels, Platonic forms, and meaning in the universe could rear their shadowy heads and strike, infecting hard-nosed philosophy with objects which cannot be either experimented upon or tested, and so it threatens the entire system of science and 'reason'. If such a thing as a soul existed then we must account for how the material world interacts with it. But we can only test the body, hence the 'soul' has to be reduced to those parts of the function of the mind which the body cannot account for, and it is assumed that these areas will shrink with time; or else the soul and body are involved in some sort of parallelism, in which case we do not need the idea of a soul as part of our casual explanations. Or perhaps we turn to the subjective, phenomenal nature of consciousness, which cannot be properly explained in the objective terms used to describe a body. But then we can always make this an epiphenomenal experience and not indicative of the existence of a thing separate from the body.

Descartes' use of the soul is then seen within a broad stream of contemporary philosophy as a product of his method, as an unfortunate and unnecessary step. On this common view Descartes could have proceeded on the basis that he did exist and then have his existence confirm his body and then his body confirm the world. But to make this suggestion is to misunderstand what Descartes was doing. His point is not to get to the cogito, but to the cogitans. It is the modern emphasis of autonomous human reason that makes the cogito the centre. If, as some have argued, Descartes wrote his Meditations to present, in hidden form, his physics which was materialist, there would have been no problem in putting forward a much more materialist idea of the mind as Gassendi and Arnauld did and therefore which the Church would have found quite acceptable. The fact that he did not indicates that these things were not done just for convenience, they represent the world as Descartes discovered it.
Descartes is not interested in tailoring his philosophy to fit the convenience of what will serve him best, or what will be acceptable or popular or the most consistent. He is concerned to present his philosophy, his experience as a philosopher. This experience will not allow the different substances of body and soul to radically divide the individual but rather to produce an organic and intimate union between soul and body which means that even when the soul is at its most spiritual in the philosophical search for essences it still does so in this world of particulars to which only the body can give us access. The desire to make the break between soul and body is a product of the tensions which we saw emerge in Chapter Seven.
PART ONE: DESCARTES' UNIVERSE.


Rene Descartes (1596-1650) most famous formulation, 'I think, therefore I am', (Cogito ergo sum) is in fact more famous than he is. This is unfortunate, for like so many philosophical cliches, it has taken on a life of its own outside of the context that gave it life. This is not simply true of the popular perception, but also of the philosophical. 'I think, therefore I am', is seen to be one of the defining moments of modernity. The emphasis given to it is often on the way that it alters the universe around the new centre of the 'I'. But this is bound to lead to misunderstanding as we will think of Descartes' ideas in the context of our own modern world and so miss just how radical Descartes philosophy was in his time and is for ours. 'I think, therefore I am' should not really be understood apart from the rest of the system Descartes was creating. Our understanding of the universe did not simply reorganise itself spontaneously around a new centre. In fact, this new centre could not come to be without the changes to our understanding of the universe that Descartes helped create also coming to be. If we take on board the cogito (I think) without the rest of Descartes' innovations which gave it sense, then we have not understood the cogito and so have not understood the universe Descartes was trying to create and so have not really understood how Descartes and the cogito relate to modernity.

The purpose of Part One will be to place Descartes in the context within which he was writing and to try to get an idea of the things he was arguing against. While such a task is important in understanding any philosopher, it is especially important in
Descartes' case since one of the key things he was reacting against was the
dominance of logic over reason. If we do not understand this and we try to analysis
his arguments simply in terms of their logic they will appear to be failures.
Consequently it is very important that we come to understand what Descartes means
by reason and how he thinks that his arguments work. This chapter will focus on
trying to place Descartes' idea of reason within its historical context.

Descartes' cogito cannot easily exist in the scholastic universe. It needed a new
universe of concepts and possibilities in order to nurture it. Descartes is putting
forward a new form of subjectivity: a new form of being in the world and a new world
to be in. Both must go with the other. In other words, we cannot understand the
centre, that is, what Descartes means by 'I think, therefore I am', without
understanding that which surrounds it. Further, as we will later see, to make the
cogito the centre of Descartes' system is both to overstate its importance for
Descartes, as well as to understand the system in terms that could only arise, after
Descartes had written, and hence, not for Descartes himself.

We should not forget that this new universe is not simply a conceptual one. As the
work of Kepler, Gilbert and Galileo demonstrated, the physical view of the cosmos
was changing as well (Coffin, 1958, pp.65-87). Consider John Donne's reaction.

By 1610 Donne had read Clavius's voluminous commentary [Christopher
Clavius was an Aristotelian mathematician, and an anti-Copernican]. With
Kepler's De Stella Nova sufficiently digested to allow himself to declare that
"the reason which moved Aristotle seems now to be utterly defeated," he
had come into possession of enough facts to make the old and the new
systems stand in sharp and irreconcilable contrast (Coffin, 1958, pp.88-89).

It was plain to the well-read that to accept the universe which the 'new philosophy'
was putting forward with the sun at the centre, meant not just rejecting a part of the
Aristotelian world, but of rejecting the whole of the reasoning that supported it. But
what was to take its place? What world view would support this new universe?
Descartes' new understanding of the universe does not call on us to reject all that we know, but rather to systematise differently what we know (Descartes, 1983, p.115 & p.125). For example, Descartes would argue that as long as there are no physical problems with the body, and the conditions of observation are good, the body is not the cause of error. It is the mind in which both error and truth arise. The body is simply a machine⁹ - a synthesising machine - which takes in and unites what the various senses sense, and passes them on to the mind. It is the mind’s interpretation and habits of thought, its presuppositions etc., that cause error. So, for example, if the mind fails to take into consideration the conditions of observation and accepts that things actually are as they appear to be when it is dark, then it is faulty thinking that leads you to stub your toe on a bucket, and not your limited perceptions. Descartes wants to change our approach to the world, to make us change how we interpret it. It is not that we interpret most things incorrectly, but that we have no way to distinguish with certainty between a good and a bad interpretation. What is needed is a new way to approach the universe which lets us test which is good and which is bad. This is true not just for our everyday life, but more importantly, for our scientific endeavours.

In the Meditations on First Philosophy, Descartes shows us how we are to find this new approach. In the Meditations we, or rather those in the pre-Cartesian era, are given cause to question the universe in which they live. Aren’t we sometimes mistaken in the judgements we make that are based on our perceptions? Don’t experts disagree on ultimate questions? On banal questions? Are we dreaming, or being systematically deceived and if we were, how could we tell we were dreaming or being deceived? Just what do we know with certainty? Descartes demonstrated that

⁹When saying this we should not imagine that our experience of being embodied is equivalent to the purely machinic nature of the body. When we experience the body it is never simply as body, but always as a body/soul. The body is machinic by abstraction, just as it is extension by essence, but phenomenologically and practically it is a great deal more than this. But more on this in Chapters Three & Eight.
those things which are normally thought of as certain can be doubted, even if only in a highly speculative way, in the search for something which no possible doubt or speculation can threaten. The arguments which Descartes used to make 'us' doubt the world were not new. Hobbes called them "those old things" (Frankfort, 1970, p.14). But Descartes used them in a new way. Before Descartes' system there were no adequate non dogmatic answers to these questions. If he could succeed, then such doubts could be defeated. A universe where sceptical questions can have no strength, where the infinite regress of doubting all is cut off before it can begin, is one in which science is secure: one very different from the one that went before.

But we should be clear about what Descartes is doing with these old things. We are not, as is sometimes thought, being asked to deny the world, but to see that by which it hangs. As Beck says, 'In the first Meditations, we are not being asked to accept the systematic delusiveness of the senses but to reject systematically the natural inclination to believe in the evidence of the senses' (1965, p.67). This distinction between accepting that our senses are systematically delusive on the one hand, and accepting that we have reason not to accept the evidence of the senses as certain on the other is important as Descartes will wish to bring back the evidence of the senses, but to do so on a new foundation. Hence, the first alternative must be rejected. We are being asked to leave common sense behind, not as Frankfort says, to establish the need for a "philosophical alternative to common sense" (Frankfort, 1970, p.14), but rather to establish a new common sense. Descartes wants to discover a more rational and ordered universe which can resist scepticism and which therefore makes science more systematic since the universe is more systematic.

Descartes' part in creating this new common sense has now faded from view for two reasons (amongst others): 1. Many of Descartes' doctrines have been discarded and; 2. we live in the world Descartes helped to create. Our world is one in which science
operates as a universal discourse without appearing to need a philosophical foundation. As Derrida says 'unlike Descartes's contemporaries we are too well assured of ourselves and too well accustomed to the framework of the Cogito, rather than to the critical experience of it' (Derrida, 1978, p.56).

This new commonsense does not begin in the physical senses everyone has in common, but rather in the mind whose essence is the same for all (for more on what this essence of mind may mean see Chapter Eight esp. pp. 234-246). In the second part of the *Principles of Philosophy*, after the principles of knowledge and thought have been established, he turns his attention to material things. Here he states that, 'Although we are all persuaded that material things exist, yet because we have doubted this before and have placed it in the rank of prejudices of our childhood, it is now requisite that we should inquire into the reasons through which we may accept this truth with certainty' (Descartes, 1973, p.254). For Descartes, even if we make a correct judgement, if we do so merely accidentally and not through perceiving it clearly, then we have judged badly (1973, p.236), since truth for Descartes is not essentially propositional or about correspondence, but is rather about a process that simultaneously uncovers and founds the truth in experience. In other words, although we are to maintain the world, we need to do so on a new footing. Now this idea that it is the mind that gives us the world, either through the senses or through mastering the senses, is at the root of such ideas as the Theory Dependence of Perception and of epistemological ethnocentrism. If our ideas are not universal and essential, but cultural and intersubjective, then our thoughts give us as many worlds as there are ways to think. The idea that the mind is a special thing made for thinking allows such possibilities. Our modern pluralism is not simply a post-colonial effect, or the result of the breakdown of universal discourses, or the end of the attempt to find the one answer or to find a single utopia/home. It is as much a result of the world Descartes handed down to us as it is of a rejection of this world.
The arguments Descartes uses to bring doubt were not simply plucked from the air by some inspiration, they were part of a systematic attack already being made on knowledge and religion. In his classic book *The History of Scepticism from Erasmus to Spinoza*, Richard H. Popkin (1979) tells the fascinating story of how such scepticism took root in Europe from the mid sixteenth to the mid seventeenth centuries. Now in recounting this story, I am not trying to say that Descartes was writing specifically in response to scepticism. Gaukroger is correct when, in Shea's words, he argues that, 'Skepticism did not motivate his quest for a new theory of knowledge. What he was seeking was a foundation for the natural philosophy that he began to elaborate years before publishing *Meditations* in 1641' (Shea, 1997, p.116). But this should not be taken to suggest that Descartes was not well aware of scepticism, or did not think it an important hurdle that needed to be crossed in order to found natural philosophy. The very form of the early parts of the *Meditations* is a demonstration of this. And as he says in response to Hobbes about the uses of these arguments,

The reasons for doubt here admitted . . . were propounded by me only as possessing verisimilitude, and my reason for employing them was not that I might retail them as new, but partly that I might prepare my readers' minds for the study of intellectual matters and for distinguishing them from matters corporeal, a purpose for which such arguments seem wholly necessary . . . Hence, while I have sought no praise from their rehearsal, I believe that it was impossible for me to omit them, as impossible as it would be for a medical writer to omit the description of a disease when trying to teach the method of curing it (Descartes, 1983, pp.245-246).

For Descartes then, the possibility of scepticism indicates that there are serious problems with the understanding of the world, both straightforwardly in common sense, and in its more sophisticated philosophical presentation. The fact that these sceptical arguments still had strength showed that the current foundation of knowledge was inadequate if it could not dispose of things which it clearly had to deny if there were to be knowledge at all.
The history of the then contemporary uses of scepticism gives us an insight into the state of the ideas of truth and knowledge in the world in which Descartes was working. This history is nicely provided by Popkin. In the Renaissance the ideas of ancient sceptics like Pyrrho through Sextus Empiricus, Cicero and Diogenes Laertius were rediscovered (Popkin, 1979, p.18). The strand of scepticism which Popkin emphasises is that of Pyrrho. Pyrrho of Elis (360-275 BC.) believed that we should hold back judgement on any matter where there was conflicting evidence (Popkin, 1979, p.xv). This was because we can only know how things appear, not how they are in themselves, and therefore we may only know how things appear to us. The wise man will then say "So it appears to me" or "It may be so" rather than "This is so" (Copleston, 1985, p.413, Vol. I, Bk I). This is especially true of moral judgements which may make you or others unhappy if they are made without true knowledge. The force of this position comes from the problem of producing clear evidence for one position or the other. In this way dogma and judgementalism are avoided. This stance appealed to many thinkers of the early modern period, most notably Montaigne (Popkin, 1979, pp.42-65).

These ideas came to be used in a rather surprising way by the Catholic Church in its battle with the reformers, especially their most logical and implacable opponents, the Calvinists. If, they argued, the Protestants wished to reject the authority of the Church because it had made mistakes, then they were doomed to absolute scepticism. If we do not accept the authority of the Church because it makes mistakes, then who can we turn to who has made no mistakes? Is anyone perfect? What criteria are used to decide what are mistakes and what are not? The Bible doesn't spell out how it should be read, and an appeal to logic is an appeal to pagan values. The idea of natural reason, which is available to all, even the peasant, is scarcely adequate as a judge of God's word. While an appeal to the Holy Spirit is just as useless as we may all equally appeal to feeling and conviction (Popkin, 1979,
pp.66-86). Pyrrhonism was called a 'machine of war' against the Protestants (Popkin, 1979, p.78) since once they began to reject authority on the basis of imperfection there could be no authority which passed the test.

These arguments were soon taken up by many others, especially in France with its Huguenot history.

The French sceptics of the first half of the seventeenth century... led the attack on the outmoded dogmatism of the scholastics, on the new dogmatism of the astrologers and alchemists, on the glorious claims of the mathematicians and the scientists, on the frantic enthusiasm of the Calvinists, and, in general, on any type of dogmatic theory (Popkin, 1979, p.108).

Hence the scepticism used by the Catholic Church to defend itself soon opened an abyss of doubts undercutting not only the grounds of religious knowledge, but of all natural knowledge as well. As the Scientific Reformation began, and the system of Aristotle was challenged, the sceptical attack quickly broadened the problem to an assault on the bases of all knowledge (Popkin, 1979, p.108).

Some, like Descartes' friend Mersenne, and Descartes' opponent Gassendi, argued that while sceptical arguments could not be refuted there were many things which could be known piecemeal "the whole is greater than the part", 'the light at noon is greater than that of the stars', 'there is a world'" (Popkin, 1979, p.133)\(^{10}\). Hence there was a place for knowledge and reasoning.

In stark contrast with this defensive attitude which seeks for the remnants of certainty within an unstable universe, Descartes does not want us to resist these doubts or find a way around them, he wants us to abandon ourselves to them. Only when we allow them their full strength can the weakness of the world be grasped and that

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\(^{10}\) It is interesting to compare these common sense ideas with those G. E. Moore (1925) gives in his famous paper 'A Defence of Common Sense'. They are very similar. This provides a warning against pressing the social construction of reality to extremes. For while Descartes changed the understanding of the world through his rational systemisation of it, many of the elements of common sense have remained substantially the same.
which is truly strong be found. To treat his sceptical arguments as merely logical is to miss the point. He does not want us to examine their logic, but rather to be drawn along by their logic, to open ourselves up to the possibility that they are true. It is in this context that Descartes can reconstitute our understanding of the world: a world where the objects are essentially the same, but the way we understand them is quite different. He gave a certainty to the universe that no one before him had. Curiously then Popkin, based on the work of Catholic writers like Gilson, claims that,

Descartes [w]as a man who tried to reinstate the medieval outlook in the face of Renaissance novelty, and a thinker who sought to discover a philosophy adequate for the Christian world view in the light of the scientific revolution of the seventeenth century (Popkin, 1979, p.172).

I do not believe that we should read the desire to retain a Christian system and bring order to the chaos of Renaissance thought as being equivalent to a desire for a return to the medieval.

Gilson’s case seems especially unlikely when we consider that the medieval world was itself in many different ways disordered. Each part of the universe was thought to reflect God’s nature (and so can be thought to reflect every other part as they also reflect God's nature) (Huizinga, 1954, p.202). Everything, being a part of God’s perfect plan was a manifestation of that perfection and of God’s perfect thought. This may sound as if it were a highly ordered and harmonious universe. Indeed, the universe it defines is such a universe. The trouble comes when you try to describe the parts of this universe. If each part reflects the others, then what determines what is the best way to describe something. Furthermore, since some relations between objects are clearly theologically wrong (e.g. the bread of the Eucharist was said to be Christ’s flesh, but the devil is said to roam around like a roaring lion looking for someone to devour. The relationship between the believer and Christ is then the same as that between Satan and his victim. So, by analogy Christ becomes the victim of and the believer becomes Satan. And so by extension of the analogy Satan
devours Christ.) then how do we guard against error, when it is in principle theologically possible that anything could be related to everything else? In these circumstances how do we determine what may be related and what may not? This system, while allowing for the universe to be unusually united and harmonious, promoted a plethora of analogies and figurative readings of the Bible and of the world, but gave no clear method to determine beforehand what would be acceptable. Thus there was a large and chaotic potential set of interpretations and reinterceptions. According to Huizinga, this period was so saturated in 'religious atmosphere' and symbolism that thought had a 'marked tendency' 'to embody itself in images' (Huizinga, 1954, p.151). This manifested itself to the extent that 'There is not an object nor an action, however trivial, that is not constantly correlated with Christ or salvation' (Huizinga, 1954, p.151). Now this means that there was a marked tendency amongst the common people, poets and clerics to read religious symbols and Biblical characters and worldly events and objects together as if they were equally instructive and meaningful. This often lead to the propagation of ideas which did not fit with accepted doctrine. 'The Church was constantly on her guard lest dogmatic truth should be confounded with . . . facile beliefs . . . lest the exuberance of popular fancy should degrade God' (Huizinga, 1954, p.155). But while this was the case, the Church itself was not immune from making such moves itself. The Church argued that because Ezekiel 5:5 says that God had set Jerusalem 'in the midst of the nations and countries' (Boorstin, 1985, p.101 quoting Ezekiel) that Jerusalem was in fact physically the centre of the world and so should always be represented on maps as the geographical centre of the world (Boorstin, 1985, p.101).

It was common, as may be expected in such an environment, for objects to be thought to be possessed of qualities or virtues which explained their nature. But since these qualities were themselves defined in terms of other things of which they were ultimately independent (Brandt, 1973, p.36) this explanation still left much to be explained. This amounted to an imposition of ordered relationships on arbitrary or
shallow judgements. For example, 'Mars and the Sun were both hot and dry, but the former was consuming, the latter life giving' (Brandt, 1973, p.35n). So a thing's qualities explain a thing's nature and yet are independent of that thing, but interdependent with the relation of qualities. Now these qualities gave a thing's nature and once defined they were needed no more. The medieval world was thus full of occult virtues, for example, a magnet had a magnetic quality while a sleeping draft had dormative power (Clarke, 1995, p.265). But these 'explanations' were no better than descriptions and so get us no closer to saying how things happen.

The Church seemed incapable of holding back this tide of imagery which mounted up meaning piled upon meaning. Scholasticism seemed unable to show the way since, on the one hand, its methods and arguments were too difficult for the average person to grasp, while on the other, it was itself stuck with explanations in the order of occult properties. These were used to explain things since Aristotelian method gave no way of getting beneath a thing and saying how and why a magnet or sleeping draft worked apart from giving a purely functional description dressed up as an explanation. Descartes rejected this scholastic method in natural philosophy in favour of a more systematic and minute approach. He was committed to a corpuscular view of the world, where cause and effect are the product of the movements of matter and not of occult substances (Clarke, 1995, p.266. Garber, 1995, pp.304-305. Hatfield, 1995, p.340). Descartes wants to banish the monsters in the forest of the medieval imagination, but he does not wish to make us change our basic intuitions about most objects, the reliability of the senses, or the idea of eternally fixed truth. (in order to see the difference between the forgoing medieval view and Descartes' picture of the universe see Chapter 3, esp. pp.86-91, Chapter 4, esp. pp.94-98, and Chapter 7, esp. pp. 208-226).
These ideas are necessary for Descartes to establish a new common sense. It is in this that his use of intuition, i.e. his belief in 'seeing' the truth by the natural light of reason depends. He does not invent the natural light, he simply helps us to find it. The old common sense was not then completely wrong. It operated with the natural light of reason as well. It just needed a way to separate the dross from the ore.

Descartes begins the Discourse on Method with a piece of irony that everyone can understand and enjoy. He says 'Good sense is of all things in the world the most equally distributed, for everyone thinks himself so abundantly provided with it, that even those most difficult to please in all matters do not commonly desire more of it than they already possess' (1973, p.81). Everyone recognises that other people believe this about themselves, perhaps more than their actions warrant. But this recognition has the useful by-product of beginning the process of having the reader start to wonder if it is true for themselves as well. Hence when Descartes goes on to say that it 'is unlikely that this is an error on their part' (Ibid.) we are brought to consider that though we all frequently do foolish things, and so could in fact act with better judgement ('which is properly speaking what is called Good sense or Reason' (Ibid.)), if I none the less do mostly make good judgements then so does everyone else. The problem is not that we lack the common sense most of us show most of the time, it is rather that 'our thoughts pass through diverse channels and the same objects are not considered by all. For to be possessed of good mental powers is not sufficient; the principal matter is to apply them well' (1973, pp.81-82). What is needed is not more good sense, but rather a method whereby anyone, regardless of their ability can test the truth of their judgements for themselves (Descartes, 1973, p.82). Now such a method could not be imposed from above since a system which required that we have knowledge before we can make judgements about knowledge
would take the power of decision making away from the ordinary person and so would not be at all consonant with their intuitions. Their intuitions would have to be sacrificed to those who already had knowledge. This situation would be no better than that of the scholasticism which Descartes was reacting against. It is to the ordinary intuitions of everyday people that Descartes looks in his own system. Descartes invites us into his system through his program of doubt and consequent certainty. He is not so much putting forward a logical argument as a program designed to make us 'see' the truth he is getting at. Concentrating on the logic of his arguments means that you might miss the force of them. For Descartes, the immediate grasping of a truth, and being brought to 'see' by an argument are intuitive processes (Loeb, 1995, p.206). How is this 'seeing' possible? To anticipate Chapters Three and Four, it is possible because when we think about something our thought both captures and creates the essence of its object. It captures it by discovering its essence, which will be the same for all such objects, but it also creates them in as much as this essence is not empirically derivable from the object. The activity of thinking that is unbounded by dogma allows thought to discover itself and create its own necessary structure. Universal concepts and clear and distinct ideas are produced by the structure of thoughts' encounters with the world. Such ideas as, "'things which are equal to the same thing are equal to each other' cannot be derived from experience since 'the latter are particular, the former universal'" (Copleston, 1985, p.83). It is the way God has made us to think, that means that when we experience the world we do so with such understandings. We can 'see' clear and distinct ideas because they are a part of the very way that we think. We cannot help but think this way, once we have begun to think. So how can we make mistakes? Error arises because we allow 'such things as prejudice, passion, the
influence of education, impatience and the over-hasty desire to attain results,' (Copleston, 1985, p.73) to affect our judgement. Once that is dealt with however true ideas can be discovered.

To take a slight deviation from our argument we should note that with the exception of the idea of God, ideas are not to be found preformed within us. And as we will see, even in the case of God, it is reason which recognises that this idea of God could only have come from God. Descartes argues that God has put the idea of himself in us in order for us to discover him, Descartes will show us how to make this discovery for ourselves, and why it must be universally applicable. But the idea of God is not in us like 'a bump on a log', waiting for us to trip over it. As we shall see it is firmly tied to our idea of ourselves both in what we are and what we desire (see Chapter Seven). We are driven to the idea of God because we cannot explain our possession of the positive idea of perfection nor derive it from experience, and hence we must have gotten this idea from something perfect: from the creator who made me and who made thought to work as it does. Our ability to derive this idea of God is evidence that God has made us, and made us in order for us to derive and know him. The idea of God is the only one which is 'placed' in us, but even this has a rational structure to its discovery.

Now to return to the argument, once we have successfully passed through doubt, and we have the parts of the world back, we find that they are mostly as they were before, but now in the context of a reasoned universe. In a rational universe we can establish certainties which everyone has the potential to know are certain from their own reflections. Things such as the qualities of particular planets are purely speculative and so fall away as knowledge after we have entered the rational universe. While we may all be able to see the nature of a triangle through reason it
is hard to see how everyone would come to the same conclusion about the occult qualities of planets by an examination of the evidence.

The ability to know things with certainty means that we can be in the world in a totally new way. While I am attending to something, I may be certain of the truth of that thing. But in what way do I know that it is still the truth while I am not attending to it? What is needed is to know when I know. After doubt has been conquered, Descartes can state that 'whatever I perceive very clearly and distinctly is true' (Loeb, 1995, p.200. quoting Descartes). Hence if we know this rule to be the case then all we need do is remember that we had previously achieved certainty in a matter to know that it must still be the case (Loeb, 1995, p.209). This provides the consistency and testability needed to make scientific knowledge possible (Loeb, 1995, p.205). Within this context everyday objects could be broken down and understood rationally.

Descartes' system claimed that in principle it could give an account of all phenomena, from the human passions to the physical sciences (although in practice Descartes freely acknowledged that we needed to limit our claims to the most important things and accept probability for the rest [Descartes, 1970, pp.283-285]). While some of these phenomena can only be known in a limited fashion, these limitations are part of the understanding of these phenomena. It provided a method of discovering certainty applicable to all disciplines and aspects of life. Descartes had a great deal of confidence in this system. "The title originally intended for the eventual Discourse on Method was: 'The Project of a Universal Science which Can Elevate Our Nature to its Highest degree of Perfection"' (Lachterman, 1989, p.129). Earlier, Descartes had made great strides in geometry and mathematics by moving towards new foundations 'which will enable us to answer every question that can be put about any kind of quality whatsoever' (Gaukroger, 1995, p.93 quoting Descartes). For the mature Descartes however mathematics was not a clear and fully founded science, but was rather, a 'superficial' (Gaukroger, 1995, p.99), dark and chaotic discipline.
(Gaukroger, 1995, p.93). The progress he had been able to make in answering old mathematical mysteries and thus giving some order to the chaos, gave him confidence that similar progress could be made in other areas of knowledge providing that you had the right method.

Descartes is not trying to graft certainty onto the old universe. The certainty will 'not take', as that world is too chaotic to allow a single method to give certainty in all cases. In order to make certainty fit with the world, the world needs to be unified. Whatever does this must be naturally accessible to all, not an imposition. An imposition, because it must be imposed, is not in tune with the world and so will not provide a unity that is all inclusive. That is, it will not provide a unity at all. We see here that Descartes' approach must be one that can get beneath any discourse or discipline and found it. So no pre-existing discipline, discourse, or institution can be taken as a model for the method to find knowledge.

Thus while Descartes, like Hobbes and Spinoza, was significantly influenced by geometry he did not try as they did to apply geometric method to other disciplines (Ree, 1974, p.32). We should heed Stephen Gaukroger's warning against reducing Descartes' philosophical method to his mathematics. Firstly, the mathematics preceded his method, that is, his practice preceded his theory, and so there is no necessary foundational link between them, and secondly, Descartes conceived of them as separate projects¹¹ (1995, p.103). The two projects are often confused

¹¹This is an issue where there is much confusion. While on the one hand writers like Lachterman will emphasise his early work and the attempt to establish a *mathesis universalis*, where all the disciplines 'must conform to the format elicited from mathematics', (Lachterman, 1989, p.175) and hence no distinction can be made between his method and the *mathesis universalis*, others like Gaukroger would reply that this earlier attitude was abandoned after the *Rules*. But then what are we to make of Descartes' statements about the *Meditations*, that they 'contain the foundations of my physics' (Lachterman, 1989, p.187, quoting Descartes), when coupled with, 'The whole of my physics is nothing other than geometry', as Lachterman does (1989, p.188, quoting Descartes). The first thing to point out is that the second quote is from a much earlier period. The second thing to note is that Descartes' philosophy gives the *foundations* of his physics, and is not then necessarily subject to the rules of geometry. The 'necessarily' can be removed from consideration when we remember that Descartes rejected Galileo's physics, not because it was not good mathematics, or because it did not give insight into planetary movement, but because he was a 'mere phenomenalist' who had solved
because one must encompass the other and the mathematical one preceded and inspired the philosophical, which also proceeds methodically. However, his second project works, not because the world is essentially mathematical, although its materiality can be expressed mathematically in terms of its extension, but rather because, the world and mathematics are subject to the same laws of reason. Descartes did not want to change the world from a place held together by God’s will and intellect, rather he wanted to have a world where that intellect was no longer hidden behind a chaotic set of dogmatic and pseudo-scientific ideas. He wanted to have a world where God’s will and reason were seen to coincide (Osler, 1985, p.359) with our reason. As Descartes says:

Thus Philosophy is like a tree, whose roots are metaphysics, whose trunk is physics, and whose branches, which grow from the trunk, are all of the other sciences, which reduce to three principal sciences, namely medicine, mechanics, and morals. I mean the highest and most perfect morals which, presupposing a complete knowledge of the other sciences is the highest degree of wisdom (Garber, 1992, p.52 quoting Descartes).

It is not so much the success of this system which is important, but rather the idea that there could be such a system.

A quick comparison between Descartes and what went before him will help us to understand the need for Descartes’ system. What was the Aristotelian response to the sceptical attacks they received?

[They] tried to answer the problems by treating them as items to be dealt with within their system, difficulties to be resolved by the criteria accepted. They did not see that to dispel the sceptical crisis they would first have to establish the basis for their philosophical system before they could show what was true according to Aristotle’s theory was actually true (Popkin, 1979, pp.127-128).

some discreet problems but who lacked insight into the way the universe as a whole worked (Hall, 1962, p.94). Such insight could not be gained through mathematical abstraction, but through a more real and philosophically founded physics (Hall, 1962, p.95).
Why couldn't they see what is so obvious to us? Because they did not have the idea of a firmly founded, naturally motivated system. The existence of this idea makes us aware of the dangers of a self-enclosed doctrinal system such as Aristotle's. They were caught inside a system that was self-confirming as long as you remained within it. It could not therefore offer certainty outside of the system, simply a way to ensure you need not consider doubt. Now while Aristotle (along with his Arabic interpreters) was important in providing a beginning to modern science, he had to be overcome or science could never move beyond dogma and make new discoveries (Wightman, 1962, p.149). Dogma was a natural consequence of Aristotelianism as an Aristotelean researcher knew that they had reached the truth when they found "something whose coming-to-be or being is not due to some other thing, for this far-as-we-can-go is itself the goal and end of our inquiry" (Nye, 1990, p.58, Quoting Aristotle). So knowledge is not merely completable, in fact it has been completed in many areas in which Aristotle or some other Aristotelian had already given the answer. Once the truth was known study in that area ceased. For Aristoteleans Questions that were asked fell either within their system or outside of it. In the second case the question was not understandable within the system and so it was not answered, while in the second, they were most often given a standard response. There was little need to look at the new, or to change how things were done.

Aristotelianism was thus a force for stagnation.\textsuperscript{12}

Descartes' system is more open and, at least in its beginnings, less institutional than scholasticism. It set out to do something which scholasticism had failed to do: to try to bring together the disparate understandings and approaches to the world.

\textsuperscript{12} Cartesianism itself became dogmatic and a force of stagnation in the eighteenth century (Hall, 1962, p.182n, p.215).
Descartes' system offers more than certainty, it also offers to heal the world of its wounds, both intellectual and moral, caused by scepticism, the reformation, and the cynicism over philosophy and science. He hoped to reunite a divided world. But for many, the central place of the 'I' in Descartes is a moment of division and not unity. It divides mind from matter and humanity from teleology. The theologian, Helmut Thielicke says that Descartes' moves away from an emphasis on being towards an emphasis on the 'I'. To demonstrate the nature of this shift Thielicke contrasts Descartes' position with that of St. Anselm. Thielicke summarises Anselm's position, in which the truth is seen as being the degree to which a thing fits into its place and function in God's order of being. So 'there is no longer only truth and untruth; there is also more or less truth' (Thielicke, 1990, p.52). The 'I' then cannot be outside of the rest of being, it must take its place in the universe and find its truth within God's order rather than the 'I' defining or proving the truth of the universe. Thielicke then mistakenly concludes that 'We are no longer at home in the structure of the world. There are shifts and cracks in the timbers. We have gone outside and are alone' (Thielicke, 1990, p.53). This conclusion, which is not surprising from a theologian, is mistaken because it makes a direct comparison between Anselm and Descartes and concludes that the differences between them are a result of Descartes' work. The world however had already developed shifts and cracks well before Descartes. Descartes was therefore attempting to provide a new foundation so that he could 'commence to build anew from the foundation, if . . . [he] wanted to establish any firm and permanent structure in the sciences' (Descartes, 1983, p.165).

A good place to start to look at these shifts and cracks is in the Thirteenth Century. The breakdown of traditional thought and society from the time of Anselm through Abelard and up until 1277, the period known as the Twelfth Century Renaissance, saw a growing interest in the sciences and an outbreak of philosophical speculation and technological innovation based on the works of Aristotle and his Arabic interpreters. The influx of Greek and Arabic ideas called into question 'the creation
of the world, personal immortality, and the freedom of the will' (Gimpel, 1979, p.181). This threatened the church to such an extent that in 1277, the Pope condemned 219 errors being taught by the universities. This, combined with the famine of 1315-1317, the Hundred Years War, economic disaster and uncertainty, the coming of the Black Death and a subsequent series of rebellions around Europe crushed this scientific renaissance (Gimpel, 1979, p.181). The events of 1277 had, according to Gimpel two major effects; they cut off the development of science from that of the humanities and they drove theology into mysticism (Gimpel, 1979, p.182). Since theology then became either mystical and therefore personal, or dogmatic and gave comfort only at the cost of intellectual freedom, a great need arose to find a unified world view which gave comfort and meaning and yet was intellectually satisfying. The rise of neo-Platonism in the Renaissance, typified by the pantheism of Marsilio Finino and his school, demonstrates this need.

Attempts to provide unifying philosophies like Finino's made no clear distinctions between types of knowledge. Unfortunately, while they allowed different types of knowledge to live side by side the alliance was unstable. However, for a time magic, science and religion all lived together with no apparent stress. Finino, like Campanella, Bruno and Pico felt that magic was a vital source of knowledge (McKnight, 1989, pp.50-51, p.84). It provided unity because its methods gave knowledge not just about the natural world but about the social and personal worlds as well. Magic not only gave us knowledge of the general principles of the world, but allowed the Magi to be able to know the future by understanding natural signs such as astronomical events and numerology (McKnight, 1989, pp.84-87). Now this magic was not opposed to either science or religion. Magic helped the move away from scholasticism toward the practical and empirical (Henry, 1997, p.46), as well as providing 'substantive conceptual innovations' (Henry, 1997, p.48) that were important in the growth of science. Indeed, as Alexander Murray points out in his engaging and important Reason and Society in the Middle Ages, magic played an
instrumental part in instilling the idea that the mind, reason, could have an effect on
the world. The belief that reason could help give us control over nature was an
essential step needed in the growth towards modern science (Murray, 1985, pp.110-
116). The Renaissance practitioners of both magic and religion believed in the other
to varying degrees. This is well illustrated by the occasion when Pope Urban VIII
was worried that astrological signs pointed to his impending death. Campanella
'constructed what was in effect a model of the cosmos that could draw the beneficial
powers from appropriate planets and, therefore, correct the misalignment in the
heavens themselves' (McKnight, 1989, pp.87-88). This greatly pleased the Pope,
and won Campanella the right to set up a college in Rome to teach his methods and
'convert the whole world to Campanella's kind of Catholicism' (McKnight, 1989, p.88).

Religion can also be seen as playing a vital part in the development of modern
science by providing the idea that the universe was ordered and that God meant us
to discover its order (Henry, 1997, pp.73-83). Conflict between science and religion
almost always came from or was directed against specific religious institutions\(^\text{13}\)
(Henry, 1997, p.80). So while science and the historical streams that flowed into it
were not opposed to God or theism, these were understood in some purified sense.
It is out of such unifying structures as Christianity, magic, and Aristotelian
methodologies that science developed.\(^\text{14}\) These different streams of thought could
work together only so long as none of them worked very well. The success of
science in the Renaissance was random and mysterious, and the understanding it
provided partial. As Francis Bacon noted in his *Novum Organum*, 'The Mechanist,
the physicist, the Alchemist, and the Magician are accustomed to grapple with nature

\(^{13}\) The 'upper and middle classes in Italy . . . at the time when the Renaissance culminated', felt a
'deep and contemptuous aversion . . . [to the] hierarchy' of the church (Burckhardt, 1958, p.445).
And yet this did not amount to a rejection of religion. Preachers of moral renewal, who emphasised
the practical and not the abstract, were very influential at this time. Through them, 'The grieving of
Christ and the saints has its consequence in this life' (Burckhardt, 1958, p.452).

\(^{14}\) For the place of magic in the development of science see Bowler (1992, pp.69-85) and
(as far as the production of results is concerned); but all (as things now stand) with feeble efforts and slight success' (Bacon, p.253).

None the less,

It was a novelty of Renaissance science that it grew out of needs which arose in the course of everyday life, and in a way that was immediate and visible to everyone. Renaissance philosophy, too, sprang from ethical and other problems that were raised by people's everyday lives, again in a way that was immediate and visible to all (Heller, 1978, p.149).

This came out of the breakdown of the control of 'science' by the church and the universities. The Platonic Academy in Florence was the first independent learning centre which accepted men from any social background. Guilds and 'secret' knowledge lost their influence. Everyday thinking was also changed by discoveries in geography and technology. The rise of Stoic-Epicurean philosophy was lived out in ordinary peoples lives (Heller, 1978, p.149). In the renaissance, science was sufficiently 'underdeveloped' so that everyone could understand it. Even Copernicus could be understood simply, even though it initially went against the evidence of the senses (Heller, 1978, p.150). However, by the seventeenth century the closeness of science and the everyday had ended as scientific problems had become too complex to be understood by lay people (Heller, 1978, p.150). The earlier union of science, magic and religion had broken because science had grown too complex and too successful. Descartes was hoping to eliminate this widening gap by showing how anyone could think clearly and understand the world. A new form of unity had to be found to accomplish this and it needed to show how all aspects of life could be the subject of reason. A new view of science was needed which could: eliminate magic without eliminating meaning from the universe; eliminate dogmatism without eliminating religion and sound doctrine, and; provide a clear path for inquiry.

What was urgently needed in the seventeenth [century] was a criterion of truth, a system by which the reliability of evidence could be checked and a new model of the universe gradually assembled from elements which had passed the new
tests of credibility (Hampson, 1982, p.35).

This did not mean that there were not useful and powerful discoveries made by scientists and mathematicians at this time which gave science a certain independent growth. However this did not help to justify science independent of its successes, nor to find a way to understand: and unify culture and society in the light of sciences successes and failures and to clearly delineate knowledge from opinion, or natural philosophy from superstition. Hence Descartes says

But as regards all the opinions which up to this time I had embraced, I thought I could not do better than endeavour once for all to sweep them completely away, so that they might later be replaced, either by others which were better, or by the same, when I had made them conform to the uniformity of a rational scheme’ (1983, p.115).

Descartes’ system attempted to meet this need.

Descartes is not then shattering the old world and imposing alienation he is rather trying to overcome the chaotic and disunited world in which he found himself. This was a world in which: the sciences were disunited, and; their success was more arbitrary than due to the result of a definite and agreed method, and; philosophers could not agree about fundamentals. They could not even to the extent of not being able to find common ground to argue over, and; where there was no way in which to successfully and finally deal with scepticism (Descartes, 1983, pp.107-113 & pp.165-170). Descartes wished to establish a new unity of world, life, thought and science. Indeed Descartes’ main concern ‘was to provide an unchanging fabric whose relevance to particulars is the sole remaining subject of inquiry’ (Hall, 1962, p.180). This succeeded to the extent that Descartes’ physics were far more influential in northern Europe than Galileo’s throughout the mid-seventeenth Century (Hall, 1962, p.182). In fact ‘physical science for more than a generation after Descartes’ death can be interpreted, without gross distortion, as a commentary upon Descartes’ work’ (Hall, 1962, p.183). The unity he provided allowed the mathematical techniques of Galileo and the experimentalism of Bacon to be brought together in Newton, Boyle
and Huygenius (Hall, 1962, pp.98-99, pp.244-276). So while it is true that Descartes' system did lead to a separation of the individual from the order of the universe and eventually from God, this was not his intention, nor its immediate result. It was intended to provide a unified system of knowledge which could overcome the confusions of the post medieval world.

Now not only was it not Descartes' intention to separate us from God, God plays an absolutely vital role in his system. It is however important to realise that while this system needed God to make it work, God was not used as a desperate ploy to clean up unpleasant inconsistencies, or fill in holes in an incomplete system. Jonathan Ree, like many modern commentators, down-grades the place of God in Descartes' system. In his book *Descartes*, God is only occasionally mentioned until pp.135-140, and then this discussion is about Descartes' proof of God, rather than the place God plays in his system. Ree tends to confuse modern philosophy's rejection of tradition with a rejection of God. As a result he concludes that orthodoxy rejected Descartes' ideas because of 'Descartes' belief that the physical world could be understood without reference to final causes, and in particular without reference to divine purpose' (Ree, 1974, p.151). This is a serious oversimplification which fails to appreciate the way in which God binds Descartes' system together. I shall attempt to show that God was integral to Descartes' whole project. As we will see throughout this thesis, and especially in Chapter Seven, the proofs of God's existence that Descartes offers are a way of establishing the nature of the relationship between God and world and hence the nature of knowledge and its limitations.
Just as God was central in Medieval philosophy and theology so he was in all the systems of early modern philosophy\(^{15}\). Whether out of conviction or pragmatism the easiest way to find unity in both the physical and mental worlds is to rely on an order given by God which makes such unity possible. As such, a minimal God was all that was required and so the God these pragmatic thinkers believed in was a deistic one. In order to retain an ordered universe, 'It seemed safer, therefore, ... to retain God, or some plausible substitute, as a kind of dialectical guaranty [sic] that all was well in the most comfortable of common sense worlds' (Becker, 1979, pp.49-50). While Becker here seems to be assuming that the move away from God is inevitable, natural and reasonable, and therefore that God's retention is somehow a concession rather than a conviction, the God of Descartes and Locke is personal and central and not just logically necessary.

Both Descartes and Locke, the two founders of modern philosophy, were Christians, but neither were interested in a return to traditional society. They were both greatly dissatisfied with the state of knowledge and philosophy they had been taught. Such teaching seemed to multiply doubts while dividing certainties. Descartes and Locke sought to discover more certain and less uncertain ways of doing philosophy and justifying scientific knowledge claims. They were concerned with human knowledge within a created universe. Hence they did not start with God, but rather with how we know. God was a given, and his existence made their systems possible, because he made knowledge itself possible. Their main concern was not then to prove God's existence, but rather to establish the demarcation between true and false knowledge, and then to justify this true knowledge.

It is in this context of belief that Descartes sets out his philosophy. Without this universe being God's universe, there is little hope of being able to find any coherent

\(^{15}\)Even for Hume, God played an important, albeit negative role. God's absence removes the guarantee of order in the universe, and the accuracy of perception that Locke and Descartes rely on in their systems.
or certain approach to knowledge. But in such a universe the way to truth should be natural and not institutional and encrusted with centuries of theory. Anyone in their right mind should be able to discover how to reason for themselves.

In his *Rules for the Direction of the Mind*, Descartes set out a series of rules through which any inquiry should be conducted. These rules should not be confused with strict laws of logic worked out by the scholastics. For Descartes such laws do not lead to truth, which, for Descartes, should be our aim. Logical syllogisms can only give truth if truth has already been discovered through other means (Descartes, 1983, p.70). And more than this, ‘the fact is that frequently we notice that often the truth escapes away out of these imprisoning bonds, while the people themselves who have used them in order to capture it remain entangled in them’ (Descartes, 1983, p.70). Descartes' rules are broad principles which may be applied to any situation. They amount to the breaking down of any problem or situation into clear and distinct parts and then connecting them carefully and simply to form truths. In the *Principles of Philosophy*, Descartes says that a clear idea is one about which we have no doubt, while a distinct idea is one that is self contained within its clearness (Descartes, 1983, pp.320-321). For Descartes 'I think, therefore I am' is not simply a matter of deduction by logic. In the *Objections and Replies* he says that it is a matter of 'seeing' the truth, 'by a simple act of mental vision, [which] recognises it as if it were a thing known per se' (Descartes, 1983, p.238). In the *Meditations on First Philosophy*, Descartes names this ability to 'see' the natural light of reason. For Descartes any simple truth properly understood is self-evident to all. Examples of simple and distinct ideas we can have are that 'each individual can mentally have intuition of the fact that he exists, and that he thinks, that the triangle is bounded by three lines only, the sphere by a single superficies, and so on' (Descartes, 1983, p.15).

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15Garber argues that Descartes had moved away from the method set out in the *Discourse on Method and the Rules* by the time he appended it to his scientific studies (1992, p.47). The method plays a minor role if at all, in the science presented in the *Discourse* (Garber, 1992, p.46). Although Garber himself acknowledges that the *Essays* are presented hypothetically in response to Galileo's condemnation, he does not factor this into his later speculations. Garber speculates that Descartes
The natural light of reason is the only way to see truth or falsehood. We cannot deduce it without this faculty (Descartes, 1983, pp.182-183). His method is supposed to cut away at all the confusions and expose the clear and distinct, so that we can see the truth. He does not so much deduce that *Cogito Ergo Sum* is the truth, as demonstrate it *through* a process that clears away all that prevents us from seeing the truth. This process reveals the truth because it leads us to the point where we can see the clear and distinct.

Descartes has been much criticised for his idea of clear and distinct ideas because of its lack of clarity and distinctness (Gerwith, 1970a, p.250). The trouble is that there are not sufficient criteria to test clarity and distinctness. But his appeal is not principally to the understanding, but rather to experience. We can use his method of 'seeing' the truth to give us the required criteria. If you try his method, he would argue, then you will 'see' which ideas are clear and distinct. It does not matter how clever you are, or how well respected, you must first lay aside all beliefs and prejudices which would stop you from thinking clearly, and follow his method (Descartes, 1983, p.284). This is one reason that so much of his work is autobiographical or in the form of autobiography. If it is true for Descartes, then it is also true for everyone else, for even if the senses wander, reason is one and certain. Reason only has one perspective, unlike the multiple perspectives of the senses.

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may not have realised that what he was doing had moved away from his method. Alternately, he may simply have wanted 'a neat hook around which to organise the diverse observations collected in the preliminary Discourse' (Garber, 1992, p.49). Why did he abandon the method? According to Garber it is because a reader could not be caused to rid themselves of prejudice through the method. Something more powerful was needed, such as the process of doubt found in the *Meditations*. The method was devised to solve specific scientific problems. 'When Descartes ceased to be a problem-solver and became a system-builder, it is not surprising that the method, central to his earlier thought, would become obsolete' (Garber, 1992, p.50). Gaukroger however argues that it was the condemnation of Galileo which hastened the need to legitimate natural science and found it properly (Gaukroger, 1995, p.304). Method was then still useful, but only in a rational universe. One had to use metaphysics to remove the dangers of scepticism and prejudice and allow the method to flourish.
This helps us to understand the emphasis Descartes puts on the personal exploration of doubt. For instance, in the *Objections* he says:

> Nothing conduces more to the obtaining of a secure knowledge of reality than a previous accustoming of ourselves to entertain doubts especially about corporeal things; I should be pleased also if my readers would expend not merely the little time which is required for reading it, in thinking over the matter of which the Meditations treats, but would give months, or at least weeks, to this, before going on further; for in this way the rest of the work will yield them a much richer harvest (Descartes, 1983, p.234).

It is then in this context that we should understand his position on intuition, on 'seeing' the truth. The truth is there to be discovered if we (Seventeenth Century people) can dispose of the confusions and dogmas which haunt us when we take the world to be as it is officially given to us in the Seventeenth Century. No merely logical argument would deliver the truth of *Cogito Ergo Sum* to us and yet it is transparently true. The same is true of discovering God. Any syllogistic proof of God's existence simply gives us the idea of God, but does not allow us to *Know* him. We must be made to 'see' it as true, to experience this discovery for ourselves. Now this truth of reason, unlike syllogistic logic, is equally applicable to all the sciences. If it were adopted, then the sciences would be seen as one, and they would share a common foundation and method. Hence the natural sciences and philosophy discover truth in the same way as we discover the truth of ourselves and the truth of God. All are united together and make sense together. If one part falls away then they all do. Syllogisms do not have this binding power. Syllogisms merely deliver the valid and are convincing on the surface. Descartes wants us to see the truth, to know it as we know ourselves. In this case, literally. We come to know ourselves truly in the same way as we discover any truth. According to Gaukroger, the problem with the rules of syllogistic argument is not that it is incorrect, but that they are external whereas Descartes' rules 'are designed to capture an internal process which operates with a criterion of truth and falsity that is beyond question' (Gaukroger, 1995, p.117).
Descartes spells out what he means by seeing the truth using the natural light of reason in the *Rules for the Direction of the Mind*,

By *intuition* I understand, not the fluctuating testimony of the senses, nor the misleading judgement that proceeds from the blundering constructions of imagination, but the conception which an unclouded and attentive mind gives us so readily and distinctly that we are wholly freed from doubt about that which we understand. Or, what come to the same thing, *intuition* is the undoubting conception of an unclouded and attentive mind, and springs from the light of reason alone; it is more certain than deduction itself, in that it is simpler, though deduction, as we have noted above, cannot by us be erroneously conducted. Thus each individual can mentally have intuition of the fact that he exists, and that he thinks; that the triangle is bounded by three lines only, the sphere by a single superficies, and so on. Facts of such a kind are far more numerous than many people think, disdaining as they do to direct their attention upon such simple matters’ (Descartes, 1983, p.42).

While Descartes set out to doubt all that could be doubted, there were two things which he felt were not open to doubt - 'common notions' and 'natural light'. The natural light is the ability to see the truth. Common notions are the relations between thoughts and so not susceptible to doubt since they are relations of inferences. Only if I attempt to relate them to objects can I be deceived (Morris, 1969, p.164). They are what Kant would call analytic truths. They allow the deduction of clear and distinct ideas, and are necessary to any thought. To doubt them is to cease to think. Natural light is 'an instinct, faculty, or disposition to recognise the truth' (Morris, 1969, p.166). We cannot be deceived about this. Sceptics also need this faculty in order to recognise and then question the truth. As Gerwith points out, 'a doubter must have some idea of what it means to be certain of something but also that he must be certain of something' (1970, p.681n). For a sceptic to be a sceptic they must possess both the natural light of reason and common notions. So since there are eternal truths given by God, and there are some things which cannot be doubted which are part of the human soul and which make thought possible and give it
structure, then a necessary condition to enable us to discover these eternal truths is to be sure that the world in which these truths exist and are discovered is trustworthy. Simply having eternal truths is not enough if the world we experience is utterly cut off from these truths. This Descartes is able to do if he can show that God is not a deceiver. Only once we have entered Descartes' system through doubting all of our old certainties, can we be certain of our intuitions, for only then have we dispensed with what we have been taught must be truths, and are thus free to see what the truth is. Learnt 'intuitions' are based on conviction or dogmatism rather than on an actual encounter with reality. Hence the 'standard objection to rationalism - namely, that self-evidence, indubitability, or even universal agreement by attentive minds cannot possibly guarantee that a statement is true' (Aune, 1970, p.111), misses the point in the case of Descartes. Once you have carried out the systematic doubting of Descartes then you have entered his system thoroughly. Self-evidence is not enough. It is self-evidence within a universe which presents the truth to reason. Both God, and the nature of thought itself, give us the guarantee of truth. (The famous problem of circularity implied in this is dealt with in the next chapter).

In summary then, Descartes is putting forward a new philosophy in order to give us a new way of understanding the universe and making a consistent, coherent and certain science possible. Of vital importance in this new understanding is the idea of the natural light of reason which is an innate, God-given ability for discovering certain knowledge. Descartes held that this natural reason should be applied in all the sciences as well as in philosophy. Thus our knowledge of the universe, ourselves and God are all given certainty through the same process\textsuperscript{17}. In this way Descartes has laid the foundation for the uniting of the sciences within the context of a unified and coherent understanding of the world.

\textsuperscript{17} As we will see later on however, having certainty in those things we can have knowledge about does not imply that we can have knowledge about everything. For Descartes, an important part of our knowledge of the universe is knowing what the limits of our knowledge are.
Chapter Two: I Think, Therefore..... Everything.

In the last chapter we saw that Descartes was attempting to create a new way to be in the universe and hence to change our understanding of the universe. This happened over three hundred years ago and since then many of Descartes' key ideas and arguments have been attacked and have fallen out of favour. It is with this in mind that we may then ask how much of this universe survives. As we saw, Descartes' rejection of logic was as much a rejection of the Seventeenth Century holders of the reins of logic as a rejection of their methods. Descartes' 'natural' approach to reason remains a challenge to all such logics. Amongst these are included some modern forms and therefore the philosophies associated with them. So if Descartes challenges the very way in which we would analyse him, how should we approach Descartes? Susan Bordo provides the insight necessary to allow us to make some progress towards answering this question. Bordo reminds us of the radical shift Descartes brings to our being in the universe. She tries to get behind this radical shift and allow us to see Descartes not as a distant, outmoded ancestor, nor as a failed contemporary.

The reason Descartes is usually considered the Father of modern philosophy is that he changed the centre of certainty from God to man, and from dogma to reason. Just as importantly however he also set limits to doubt. Doubt could no longer be held back by dogma and fear or faith, it had to be held back by certainty. The importance of this for Descartes is brilliantly shown by Susan R. Bordo, in her book *The Flight to Objectivity: Essays on Cartesianism and Culture*. Bordo begins by recapping the events between 1400 and 1600 that caused doubts to arise about the

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18 In some ways this thesis might be seen as a detailed working out of this insight. It was essential in understanding why many of the more recent and greatly improved interpretations of Descartes still fail, in some important ways, to come to grips with what Descartes is doing.

19 While this is the common view, it will be argued here that the situation is much subtler than this.
accepted picture of the world. Along with the Reformation, and discovery of very
different cultures, she lists the Copernican revolution, and the telescope, which gave
cause to doubt the senses. She also cites a fact pertinent to Descartes personally.
He had some very disturbing nightmares that haunted him until he controlled and
conquered them by reason.

Bordo, unlike most modern scholars who believe that Descartes' doubts are purely
rhetorical, argues that we should take the doubts Descartes uses seriously. Unlike
Bordo, writers like Ree present Descartes as a man outside his time. His confidence
in himself and in his ideas is emphasised. Ree begins the first chapter of his book on
Descartes by pointing out that at 23, Descartes felt that he could develop a new
science.

Descartes could hardly believe that such an important task had fallen
to him. He even doubted his sanity. But in November he had a dream
which convinced him he had been chosen for the task by God, and that
he had discovered "the foundations of an amazing science"
(Bordo, 1987, p.19).

His confidence was such that he felt that those intellectuals who had already rejected
'orthodox scholastic Aristotelian philosophy' (Bordo, 1987, p.19) themselves held
beliefs which were 'no better than scholasticism' (Bordo, 1987, p.19). Ree then
argues that a man with such confidence need not really go through the process of
doubt and discover certainty as described in the Meditations. 'These essays purport
to be the spontaneous diary of six days of intense thinking, but their appearance of
simplicity is deceptive. They were in fact drafted and redrafted countless times over
a period of eleven years' (Ree, 1974, pp. 70-71). But the fact that the presentations
in the Meditations were not a true journal of events does not mean that he did not go
through some similar process. Stephen Gaukroger tells us in his biography of
Descartes that around the time of his first discovery of what would become his
Method, 'Descartes, scorning company and even his usual solitary walks, devoted
himself exclusively to his search, completely exhausting himself before he finally found what he was looking for. In a state of delirium, he experienced intense joy’ (Gaukroger, 1995, p.106). Descartes was indeed a very confident man. We can see this by considering his attempt to find a *mathesis universalis*. However, it does not follow that confidence automatically transforms into method. He had the confidence to seek for a way to found knowledge, but this does not mean that one simply appeared. To argue as Ree does, is to confuse Descartes’ philosophy with his psychology. Even keeping to the psychological it could be argued that having one area of life so secure can be a spur to making all of ones life secure, or, conversely doubts from other areas may threaten the security one has already obtained.

Now while Bordo acknowledges that Descartes does use the doubts in the *Meditations* as a rhetorical technique, she also argues that they are not simply rhetorical. She points to the strength of the images he uses: ‘madmen, evil geniuses, and hallucinations’ (Bordo, 1987, p.14). He calls his method of doubt a purge. ‘He speaks of razing buildings to their foundations . . . wiping clean badly conceived paintings . . . overturning baskets of rotten fruit’ (Bordo, 1987, p.16). She goes on to make the excellent point that those critics who reject the intensity of his doubt and find his metaphors, "misconceived" and baffling' (Bordo, 1987, p.15) are already within the Cartesian tradition, and so do not need to go through the same radical process to discover certainty, nor feel the relief of reading Descartes' discovery of it. She cites Kenny, who questions the apple basket metaphor. Why does Descartes have to dump all the apples (ideas) from the basket for fear that one is rotten? Why not go through them one by one and keep the good ones and throw out the rest? The reason, says Bordo, is that for Descartes ideas are not distinct and separate, but are "capable of affecting each other" (Bordo, 1987, p.17). So for Descartes, securing ideas one by one is not possible without first being in a universe.

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20Gaukroger points out that the issues of the Cartesians are read back into Descartes himself, although the interests of the Cartesians were in trying to clarify issues in Descartes that Descartes did not think were important enough to bother with, thus distorting Descartes (1995, p. 469n.).
in which general certainty can be given. The conditions under which an idea becomes capable of being secured from doubt must also make other true ideas secure, or else all are in danger. For Descartes it is not separate ideas which can be examined, but the actual trustworthiness of commonsense ideas and experience.

For Descartes, there are only two possibilities: absolute certainty or epistemological chaos; that is, purity or corruption. This is not a philosophical "assumption", however, but a perspective on reality, one which, as many authors have argued, functions as a response to anxiety. When the universe becomes unmanageable, human beings become absolutists (Bordo, 1987, p.17).

Again, however, we should resist the urge to reduce Descartes' philosophy to his psychology, and remember that while Descartes did find the world chaotic (even mathematics) and so may have experienced anxiety, he also had a great confidence in reason and in himself. The point here is not to counter psychology with psychology, but rather to remind ourselves that someone's psychological state does not necessitate the invention of any particular set of doctrines. Strong feelings do not secrete rational arguments, even if they are the occasion for thinking about an issue. Like anyone else, Reason, desire and emotion were present in varying combinations at different times over a range of issues throughout Descartes' life. But the emotional desire to do something does not mean that it can be done nor tell us how it is to be done. Bordo's analysis is however, a useful reminder of the complexity of philosophical inspiration rather than the key to understanding Descartes' philosophy. It certainly shows us that if we try to understand Descartes' philosophy simply in terms of the logic of his arguments we will have missed the impact that he hoped we would experience by 'seeing' for ourselves that what he says is true.

Bordo's point is that Descartes is breaking away from the world he was in, but is not in our world either. He makes our world possible, but cannot properly be understood simply in the terms of our world. Because of this Descartes' philosophy provides a
challenge to all the work we do today: work which is based on hidden assumptions which we derive from Descartes and yet deny explicitly in the work we produce.

To understand this we need to begin to understand the lever he uses to brings such a shift about - the immaterial mind. The mind, released of prejudice and dogma can make universal, eternal judgements, which can then change the way a universe is perceived. But in line with Bordo's point we will see that the mind for Descartes is not so simple a thing as is often portrayed. Through Bordo we will then see the difficulties that present themselves for us in understanding Descartes. A few examples taken from contemporary philosophical work on Descartes will follow as illustrations. These examples will again focus on the mind and try to show its place in Descartes' system. This will allow us to see Bordo's point more clearly. Bordo is arguing that Descartes is putting forward a new understanding of the universe and hence a new way to be in the universe. We thus need to see each part of Descartes' system in terms of the whole of the system or we will misunderstand the parts we focus on.

In Descartes' universe reason can attain a universal and representative position because the mind, that which reasons, is made of different stuff from the body. It is spiritual and not material. Descartes comes to this conclusion at the end of a process of systematic doubt which he uses to overcome everyday doubts he has about various knowledge claims and ordinary life experiences. Once Descartes has, through the method of doubt, split the doubtable (the body) off from the indubitable (the mind) then,

the physical universe must be devoid of any characteristics associated with soul or spirit. Gravity could no longer be explained in terms of an objects "desire" to return to its natural place. The actions of a magnet could no longer be attributed to the existence of a "magnetic soul". All matter, both organic and inorganic was entirely passive. Only through God's action was spirit and matter brought together in the human mind, but the rest of organic nature, including the human body, was inert
(Channell, 1991, p.17).

For Descartes this dualism allowed him to escape the errors of the body by being 'a mind so far withdrawn from corporeal things that it does not even know that anyone existed before it' (Bordo, 1987, p.94, Quoting Descartes). In the mind's self-transparency and immateriality, we can be truly objective, for it has no 'place' in the universe, and so, 'can relate with absolute neutrality to the objects he surveys, unfettered by the perspectival nature of embodied vision' (Bordo, 1987, p.95).

Descartes applied doubt to all he could, because if it was possible to come up with a reason to doubt, say, the truths of mathematics, then it places a question mark over its ability to be a foundation for knowledge claims either in its own realm or in any other. So then the world, our perceptions, our deepest beliefs and even our body are doubtable. However, Descartes finds that even if an evil demon were deceiving him about all the things he held to be certain, it would be he, Descartes, who was being deceived and therefore, in as much as he, a disembodied indubitable he, was being deceived, he existed. Once the point of 'I think, therefore I am' is reached, Descartes is able to deduce the existence and nature of the universe and of God.

What allows the immaterial mind and the material world to communicate? In the Meditations on First Philosophy, Descartes must go from the immaterial ego to the spiritual God before he can establish the material world. Does he go to God again here? Kenny, who adheres to the standard interpretation of Descartes on the mind matter split, claims that Descartes felt that the point of joining the mind and body was the pineal gland because it is "the most inward of all the parts of the brain" (Kenny, 1968, p.224, Quoting Descartes), is not divided into left and right, and is in the centre of the brain (Kenny, 1960, p.225). The reasons Descartes gives are not really adequate to explain how this joining is accomplished. But Descartes' case is not quite as simple as this. In the Passions of the Soul, the pineal gland is the 'main
seat' (Descartes, 1966, p.125) of the soul. Now the ideas we have of the world are single, yet we have two of each sense organ (except taste) two sides of the body, two nostrils, two eyes. The place where these impressions are united in the brain before going to the soul must also be single. The only place that is in the right location and has the correct form is the pineal gland (Descartes, 1966, p.124). It is here that the soul may take direct action and be given a single world to know (Descartes, 1966, p.124). However this is not the only place where body and soul are joined. In Article 30, Descartes argues that since the soul has no physical dimensions and is indivisible, and since the body is essentially one, then 'we must know that the soul is truly joined to the entire body' (Descartes, 1966, p.123). So the soul is not something tacked onto the body, nor the body an afterthought. They are organically linked.

In his Article 'Hysteria and Mechanical man' (Wright, 1980), John F. Wright shows just how closely Descartes links the two. He paraphrases Descartes and says that 'the mind depends so strongly upon the body that, if it is possible to make men wiser and more intelligent than they now are it is in medicine that the means must be sought' (Wright, 1980, p.238 quoting Descartes). He further quotes Descartes from the *Meditations* where he says 'I am not only lodged in my body like a pilot in his vessel, but, besides that, I am very tightly conjoined to it, and so confused and mixed that I compose with it a single whole' (Wright, 1980, p.239, quoting Descartes). Here we have both the special place of the I, 'I compose with it' and the unity of soul and body. According to Wright, the psychological states of 'sensation, memory and appetite and passions, and the automatic behaviour which results from stimuli from the various sources' (Wright, 1980, p.239) are all physiologically dependent. What Descartes is demonstrating is not that body and soul are separate, but rather that they are separable. They are ontologically distinct, and yet organically one. Body and soul are in fact organically united. How can they be when one is spirit and the other matter? They are tied together as a single entity form birth. They are not A + B = A.
+ B but rather \( A + B = \) human individual. Each soul is united with a body and this unity is what makes a human being a human being. In a letter written in 1640, he states that the demonstration he provides is done to show the souls immateriality, not its independence (Descartes, 1966, p.211). So to be human is to have both body and soul. To ask how body and soul are connected is for Descartes a less difficult problem than to try to explain how a purely physical being could think, which is the alternative he perceives. If a purely physical thing cannot be rational, then it is foolish to quibble about how mind and body are connected since we are undoubtedly physical and yet also rational. Again, to ask how mind and body are related is to refuse to acknowledge that body and mind are related until you can say how they are related even though you know that they are related and this is equivalent to trying to explain why the way the world is, should be the way the world is. That God has created the world and us in the way he has is not open to question, we must simply deal with the world as it actually is, and not concern ourselves with questions we cannot possibly answer\(^21\). That the body and soul are separable and connected is the case and Descartes is not trying to say why, but simply that they are. Body and soul interact, and the soul will depart without the body. So how are the two connected? Well, just as Descartes goes to God to join mind to world in the Meditations, so here 'God is, as it were, the link between the sphere of finite spiritual substances and the corporeal sphere' (Copleston, 1985, p.21). Now while Descartes may be construed as advocating a form of occasionalism to explain the transference of motion when one body hits another and causes it to move, he does not do so in the case of the relationship between mind and body (Gaukroger, 1995a, pp.390-391). God links mind and matter together, just as he links matter and matter together. It is the way that God made the world and not something he needs to actively maintain

\(^{21}\)Indeed, Descartes' critics are exhibiting an Aristotelean attitude here by looking for explanations in terms of final causes and purposes. As Williams says in another context, 'God's purposes are inscrutable, and it would be both impious and pointless for his [Descartes'] finite mind to try to fathom them. In general, he goes on to say, it is improper to look for final causes - that is to say, explanations in terms of purposes - in philosophy or science: it always involves the impiety of trying to discover more than God revealed' (Williams, 1978, p.166).
apart from his usual universe sustaining 'activities'. This relationship between soul and body, along with the other facts of the world, did not have to be the case, and as in these other cases, all that we can say is that they are this way, which meant, for most Seventeenth Century people, that God had made it this way.

The importance for this in terms of the journey Descartes is taking us on, is that based on the nature of mind, it makes sense that if I, Descartes, can know my existence with certainty by isolating my thoughts and knowing that they are mine, then any one who thinks can do the same. So anyone, if they follow his method, can with certainty, deduce the rest of the universe and the existence of God, just as Descartes did.

Now if we couple Bordo's insights with what we have just learnt about the mind we can draw valuable lessons from Bordo's point which may be applied to other issues common to recent discussions of Descartes. The extended debate on what Descartes thought he was doing in his 'I think, therefore I am' is a case in point. Stone's article 'Cogito Ergo Sum' provides us with a good example. Stone argues that the indubitability of Cogito Ergo Sum relies on an internal relationship which amounts to saying that 'there is something that is me' (Stone, 1993, p.468). When I think, 'I think, therefore I am' 'thinking this very thought constitutes the fact that I exist' (Stone, 1993, p.468). This, he says, has an interesting consequence, which is that the 'Sum Res Cogitans' follows directly from the cogito. For if my existing is nothing more than my thinking this very thought, then it follows immediately that I am a thing that is constituted by the fact of its thinking' (Stone, 1993, p.468). The problem here is not with the conclusions he draws, but in the surprise which he feels at finding the cogitans and cogito connected. It should come as no surprise that the two are connected. Descartes himself felt that to use the cogito simply to prove your existence, as Augustine had done, was too obvious to bother with: 'to infer that we exist from the fact that we doubt is something so simple and natural that it might have
come from anyone's pen', (Descartes, 1966, p.211) rather, Descartes uses 'it to show that this "I" that thinks is an immaterial substance which has nothing corporeal about it' (Descartes, 1966, p.211). Descartes' 'I think, therefore I am' can only really be understood properly within the context of what he was trying to do, that is: to demonstrate the immortality of the soul. Many modern commentators forget this and try to treat it, not as a demonstration of the immortality of the soul but rather as a demonstration of the indubitability of his existence. The two however are intimately linked. While the logic may flow from the cogito to the cogitans, the possibility of the cogito depends on the cogitans. The two are really one. I know I exist because I can think. This demonstrates my existence because I am a thinking thing. Since I can separate my thinking from my body then my true 'I'ness is my thinking and therefore I am a thinking thing. Since I am a thinking thing my thought demonstrates my existence.

What is a thinking thing? It is the soul, separable from the body and not subject to physical decay. The 'I' that I demonstrate exists is the immaterial, immortal soul, not simply the thought that I exist. The two parts, the soul (thinking thing) and the thought that 'I am', support each other and are intended to go together. The reason that philosophers have spent so much time wondering if the Cogito Ergo Sum was an argument, and if it was, what sort is it, and just what Descartes thought he was doing in it, and whether it works, is that we are in the post-Cartesian era and the kind of commonsense that we live by and think by, which Descartes helped to establish, blinds us to the systematic nature of what he was doing\(^{22}\). We see the parts, not the whole, because we live with the parts, while in contrast we live in the whole. His system had to be established before he could show how to divide an issue up. Since we now have a rational universe we can reject what we think is less important - the proof of the soul's immortality - and concentrate on what we take to be his major

\(^{22}\)In conversation, Michael Symonds pointed out that this helps us to see that Descartes' earlier assumptions about the ahistorical nature of common sense are in fact based on a new commonsense which he was creating. A common sense which includes cogito ergo sum as indubitable.
achievement - the placing of humanity at the centre of certainty. The two are no longer intimately linked. We may pick and choose because our universe does not rely on any particular part of Descartes' system. The universe we live in is one made possible by Descartes', one that is rational and allows for certainty, yet we reject many of the doctrines which find their place within this universe. As both the ideas and the universe are tied together however, the rejection of Descartes' doctrines, while maintaining the universe in which they exist, will lead to problems, as we will see in Chapters Seven and Eight.

Of course, there are also objections to the way that he moves from the *cogito* to the *cogitans*. Cottingham (1995) expresses it well when he says 'Descartes moves from the proposition that he can doubt the existence of his body to the conclusion that he can exist without his body' (p.242). This, Cottingham describes as 'one of the most notorious non sequiturs in the history of philosophy' (1995, p.242). He goes on to recount the way that Descartes responds to his critics on this point by rewording his earlier presentations of his argument. 'What is interesting is that Descartes' confidence in that thesis was entirely unshaken by the telling criticisms to which his arguments were repeatedly subjected' (1995, p. 245). Cottingham concludes that Descartes' confidence in this matter is based on his scientific researches into the nature of thought and matter (1995, pp. 245-247). This seems unlikely given that the nature of Descartes' response was not to draw our attention to such information, but to restate his original position. Such a move is far more consistent with the idea that he is confident with his original arguments, but feels that his readers have not 'seen' the truth yet. This would also explain the frustration he expresses in these replies. From a purely logical perspective there is no necessary connection between the two parts of Descartes' argument, but it is not logic on which he is depending. He is not
guilty of a non sequitur because he is not trying to present an argument that depends simply on logic. The logic of the argument serves as a guide in a process that leads to 'seeing' the truth if you have gone through the process of doubt, not if you have simply read it and analysed it logically. (We will see more details of this process in Chapter Four).

To return to Bordo's argument, Descartes' concern for being able to know that we are not in a dream, is not because he is worried that he might be dreaming and could not tell it from waking. Bordo argues that Descartes does not ask us to imagine we are sleeping, and doubt that we are, or to being awake and wondering if we were asleep. 'To the latter is when he remarks that his astonishment over the similarity between the dream state and the state of wakefulness is such that

it is almost capable of persuading me that I now dream". But to be persuaded that one is, is not the same as questioning whether one is dreaming (Bordo, 1987, pp. 19-20).

The reason for this concern with states of mind like madness or dreaming is that they so completely "occupy" experiential space that there is no room for questions about the correspondence of these states to reality. The dream is convincing, not because it is so vivid that it simulates reality. . . but because, for all its murkiness, it is "reality" for the dreamer. . . . To think "I am awake" indeed involves asserting or representing something to oneself. To be under the illusion that one is awake involves nothing of this sort. It is just like being awake except that one isn't, and this is what troubles Descartes so (Bordo, 1987, p.20).

Hence 'the human mind is subject to mystification - that it can be caught up in states absolutely compelling . . . yet representing the world in an absolutely false way. It is
this fear that underlies Descartes' need to overturn and empty all the contents of the mind' (Bordo, 1987, pp. 20-21).

This provides an important contribution to the Cartesian Circle debate, which for our purposes is principally between Gerwith (1970, 1971) and Kenny (1968, 1970) but also including philosophers like Schouls (1972) and Morris (1972)\textsuperscript{23}. The debate centres around whether Descartes was involved in circular reasoning when he argued that God exists, but then seems to claim that you need God in order to be sure of clear and distinct ideas such as were used in order to prove God's existence in the first place. The debate is not so much whether he did or did not use circular reasoning, as about the way in which he avoided it. Both Gerwith and Kenny share an insight in their respective articles which is crucial for their different understandings of how Descartes avoids the circle. They both accept that to different extents, Descartes does not doubt clear and distinct ideas, but they both agree that given the context in which they occur they can fall under question. Gerwith points out that Descartes does not doubt that the mind has clear and distinct ideas, simply that it cannot be sure of their truth (Gerwith, 1970, p.680). Kenny questions this, arguing that only some clear and distinct ideas are doubtable, while others are not (Kenny, 1970, pp. 688-689)\textsuperscript{24} and it is these latter which are used to demonstrate God's existence. As part of the argument he says

Consider the proposition "I cannot doubt what I clearly and distinctly perceive". On Descartes' view this is true if it means (3) for all p, if I clearly and distinctly perceive that p, then I cannot doubt that p. It is false if it means (4) I cannot doubt that (for all p, if I clearly and distinctly

\textsuperscript{23}For an extended list see Loeb (1995, pp. 225-226, n.2). Loeb divides the various approaches into two broad categories: those whose interpretation is epistemic, who hold that Descartes demonstrates that there is good reason not to doubt clear and distinct ideas; while the second interpretation, the psychological, holds that it is psychologically impossible to doubt clear and distinct ideas (1995, p.201). These two positions can be brought together if it is recalled that the psychological impossibility to doubt the clear and distinct is intimately linked to the arguments Descartes uses to take us through doubt to certainty. We must be able to isolate the clear and distinct, and to know that once we have done so that it gives us truth. To avoid the circle both argument and psychological factors are necessary.

\textsuperscript{24}A similar point is made by Morris (1969, pp. 164-165).
perceive p, then p) (Kenny, 1970, p.689).

In other words, while he cannot doubt any particular p (idea/perception), he can believe that some p's may be false while not considering those particular p's. In response, Gerwith later gave cause to doubt this conclusion since being psychologically certain does not mean being metaphysically certain (Gerwith, 1971, pp. 294-295). But, as we have seen, for Descartes, to be psychologically certain, after following his method, does equate with metaphysical certainty (Descartes, 1983, p.284). But even if this were not the case, Gerwith's point reinforces the idea that it is the nature of the world that is at stake and that psychological certainty about any particular thing does not amount to certainty about the entire world.

So Descartes entertains the idea that in theory it is possible that some clear and distinct ideas are false, even though 'he cannot entertain any thought that would be an existential instantiation' of it (Kenny, 1970, p.689). The theory that makes it possible to have such doubts is that God is a deceiver. The objects themselves are not questioned or in most cases really questionable. They need to be placed in a situation which undermines their certainty. Just as Gerwith suggested that Descartes could maintain all of his clear and distinct ideas and still have their truth questioned, what Descartes wants is not simply the assurance that his world hangs together, that it makes sense, but also that this world is the real world. P is not doubtable in its own terms, so we must eliminate the other possible ways that p can be doubted. The world of p's is what Descartes wants to preserve. The creation of his system does this. The kind of doubts Hobbess was familiar with could be banished from the world when its discrete, haphazard, and contingent nature was eliminated. This was achieved by Descartes doubting systematically, and triumphing rationally. The world that is thus restored is immune to such meta-doubts, and is bound together by reason. Descartes could never really doubt clear and distinct ideas since they are
clearly 'seen' to be true. This is why a world in which this certainty did not mean truth was so frightening.

So the important point for us in the 'Cartesian Circle' debate is not that Descartes does avoid circularity, but the way in which his argument deals with the possibility that our certainty could be delusives. Can the certainties overcome any possible doubt? In the right world they can. In the right world they will. We tend to think of Descartes as creating this view of the universe, but for him, he was simply uncovering what was always there (see Chapter Three). So it is not by reason that we make a new world, but it is because the world is this way that reason revealed it to be this way. So the emphasis is not on his arguments convincing us, but rather on his arguments allowing us to see the world and know it to be as it is (see Chapter Four). Once the nature of the world is demonstrated through the cogito as reasonable and discoverable then the rest follows. Thought, when correctly used, has the power to break through to the essence of the world and to reveal to all the truth to all. A truth which is for everyone and so which works against the forces which bring division based on the obfuscation of prejudice. It is, in the end, the internal strength of the certainties Descartes discovers that achieves this. Since no possible doubt can overcome it, Descartes' world is secure.

While we live in the universe Descartes made possible, the universe he lived in is not ours. We need to work hard to understand his method. His method was used to create a new understanding of the universe. This universe is clearly not ours. What has occurred to make this happen? There are a variety of reasons for this, but the approach to be taken here is to find those points within Descartes' philosophy which will become tensions for those who follow him. These tensions arise because we take what we want of Descartes' universe, the security and unity it offers, and reject what we do not like. But they are all intimately linked together. As we saw from Bordo, Descartes does not simply give us certainty. Indeed he would say that unless
everything is capable of being judged in regard to its capacity to be judged in terms of truth and certainty, then no individual thing can be so judged. Although there are some things which Descartes thinks cannot be known with certainty, this is due to the nature of the thing and question, and so we may be certain that we cannot be certain. Our confidence in our ability to find the truth and decide upon knowledge comes from our understanding that this universe does, in some way or other, make sense which in turn comes, at least in part, from Descartes. As Descartes' secure universe is dependent on his understanding of the nature of mind, we will see in Chapter Eight that the rejection or misunderstanding of this idea will have serious repercussions for modernity.
Chapter Three. Innate ideas: Creating what has already been created.

Since the late 1960's and 1970's when Norman Malcolm, Harry Frankfurt, Anthony Kenny, Alan Gerwith, Bernard Williams and many others reopened serious discussion of Descartes for the English speaking world, Descartes scholarship has come a long way. Scholars are now much more aware of what Descartes was trying to do, and the context in which he was trying to do it. There is, however, still a tendency to abstract Descartes' arguments away from his aims and milieu and try to deal with them in terms of present day philosophical issues and concerns. The issue of the nature of ideas as treated by Stephen Gaukroger in his important book, Descartes: An Intellectual Biography is a good example. It is dedicated to presenting Descartes' thought in the context in which it was written and with an eye on the science he was doing and trying to found. In this way he hopes to avoid presenting a Descartes 'in an obsessive but completely decontextualized way, through the tired old questions of the cogito and the foundations for knowledge' (Gaukroger, 1995a, p.vii) which was the way he had been taught Descartes. But while he does this with great success in most cases, he still sometimes approaches his topic as if Descartes were writing today, and demands of him what we would demand of a post-Cartesian.

In Descartes: An Intellectual Biography, Gaukroger sometimes counts the lack of a clear resolution on some things as an indication that Descartes was being evasive or sloppy or mistaken. While Descartes is sometimes loose in his terms, a seeming lack of clarity need not indicate a lack of care, but rather the nature of the thing at issue. The lack of clarity can play an important part in Descartes' philosophy and is not necessarily an oversight, mistake or gap. Viewed in terms of the natural light of reason, some things must overlap the boundaries we would like to set up between essences. Not only does reality sometimes create intimate relationships between
apparently incompatible essences, but, as we will see, essences are related in ways that are not accessible to us for they are of God.

The things that Descartes does not make clear which Gaukroger refers to are: 'The question whether sensation takes place in a corporeal organ or an incorporeal substance [since this] is just not an issue for Descartes, just as whether 'ideas' are corporeal or incorporeal is not an issue' (Gaukroger, 1995a, p. 469n.); and, 'Descartes is notoriously imprecise about how we should conceive of ideas - whether they themselves are dispositions or acts, how we distinguish them from their propositional content, even whether they are mental or physical' (Gaukroger, 1995a, p.409). While we will be taking issue with Gaukroger here, we are following his work because it provides us with certain clear advantages. These stem from the great advances in our knowledge of Descartes which his work provides: by seeing how Gaukroger gets caught up in modern forms of understanding we come to see the extent of modernity's distance from Descartes. The thoroughness of Gaukroger's discussion makes it a good starting point from which to explore the central problems concerning innate ideas from a modern point of view. This contrast then allows us to come to understand Descartes' philosophy and world better. What we will in fact come to see is that Descartes' understanding of innate ideas reinforces what we have already learned about the unity of Descartes' philosophy and how God and science work together to provide knowledge in a way that anyone can have access to.

Descartes argues that the senses provide us with two dimensional shapes which are united by the common sense ('that corporeal faculty in which impressions received by the various senses are brought together' (Gaukroger, 1995a, p.164)), instantaneously. The analogy he uses to explain how this can happen instantaneously is that of the movement of a quill. When you write with a quill, all the parts move together, but nothing travels from one end of it to the other to
communicate this movement. 'Does anyone think, Descartes asks, that the parts of
the body are not more closely connected than the parts of the pen' (Gaukroger,
1995a, p.164)?

Gaukroger says of this analogy,

This is disingenuous: the connections between the eyes and the brain could
take a number of forms, many of them less closely connected, if by this is
meant something like 'less solid', than the parts of a quill pen. And the quill
has, after all, a good deal of freedom of movement since it is, in the air. Trap
the quill between muscle and bone and one may well find that the only motions
mirrored at the end of the pen is a longitudinal one and that any transverse
motion is impossible (1995a, pp.164-165).

Gaukroger here takes 'closely connected' to mean physically connected. On this
reading the physical nature of the quill is what is suggestive of the greater connection
of the body. But in that case there is an immediate problem. Gaukroger's point is
that the pen moves as it does because of its physical nature, but the physical nature
of the body is so different that the analogy breaks down. Gaukroger supposes that
the close connection refers to solidity. He slips into a post-Cartesian position which
takes the body as simply material, divided up spatially and therefore requiring time for
the signals of the nervous system to travel. He does not suppose that the difference
between the connection of a quill's parts and a human's might not be one of material
construction but rather, could be one of type - of the order of being.

I do not believe that Descartes is trying to say that because a quill flops around in the
air that a body is more closely connected than it. Descartes' appeal is not to
scientific theory, as is indicated by the phrase 'does anyone think'. His appeal is to
what ordinary people know about their bodies. Now what knowledge can be so
surely shared about the body? Intuitive knowledge. Descartes is appealing to our
experience of being embodied. When we press our finger into something hard we
immediately feel the pressure. Unless we have a physical problem we do in fact find
that our perceptions are unified. Gaukroger has gotten caught up in modern readings of the body and of matter and has forgotten Descartes' principal mode of intellectual movement through his method. The important thing to take from this for us is that the body is in fact a unity even without a physical theory that can explain it.

The reason that the parts of the body are more closely connected than the parts of the quill is that the body is both organically and spiritually connected. It is one in a way that the pen cannot be. The corporeal common sense, the body and the soul are all bound together and are one - not just by name, as when you say 'a quill', but in experience. The point of the analogy is that all the parts of the quill move as one. So with the body, it moves together and unites all movement, because it is in fact one. It is not a compilation of organs and liquids, but a single bio-spiritual entity.

Gaukroger acknowledges that if Descartes had a plenum\textsuperscript{25} in mind, then his argument could work, however he says that since Descartes offers no such suggestion we should simply let the argument stand on its own. As we have just seen, however, Descartes is not appealing to any particular theory of the body, but to experience. The actual time it takes for information to travel the nerves is of no relevance, it is a modern imposition onto Descartes. However, as Gaukroger says, the argument based on the idea of a plenum was available to Descartes (1995a, p.440n.). Descartes could have supplied such a theory of perception that explained the instantaneous nature of perception using, as Gaukroger suggests, the corpuscularian theory of the plenum. The question then is why Descartes did not avail himself of such an explanation. If we explore what such a theory would entail, then we will come to see that Descartes does partially use such an understanding of the body, but that it is too simplistic to account for all of the experiences of being embodied.

\textsuperscript{25} A space completely filled with matter.
If the world is made up of tiny particles, with no gaps possible between them as in a plenum, then when one particle is moved, this sets up a series of instantaneous movements in all the particles disturbed by the initial force. He gives the example of wine in a barrel which will not flow when the tap is open if the bung is still in the top. This is not because of any Aristotelian fear of a void that the wine may harbour. It is rather because,

The region of air that the wine would displace were it to leave the vat would have nowhere to go, whereas when one opens the top of the vat one opens up a circuit, and the air at the bottom can move, pushing other air upwards in a circular column that replaces the region vacated at the top of the vat by the wine; although we must remember all the while that this must be a strictly instantaneous process if a void is not to be opened up (Gaukroger, 1995a, pp.234-235).

Now consider a very similar sounding explanation of perception. Descartes believes that when the senses are stimulated it is like making an impression in wax.

I am not just using an analogy here: the external shape of the sentient body must be thought of as being really changed by the object in just the same way that the surface of the wax is altered by the seal... The same is true of the other senses: thus the first opaque membrane of the eyes takes the shape impressed upon it by the many colours of the light (Gaukroger, 1995a, p.161, quoting Descartes).

Now when this is coupled with Descartes saying that 'the slightest touch that sets in motion a point of attachment of a nerve in these parts also simultaneously sets in motion the point of origin of the nerve in the brain; just as pulling one end of a taut string instantly sets the other end in motion' (1970, p.243), we can see that the textures or tastes or sights or sounds impressed on the senses may be simultaneously transported to the common sense and united.
But perception in Descartes is not as simple as this. We will take the case of vision, which Descartes presents in the *Dioptrics*, as our example. Before we can understand this, however, we need to understand the way that the mind and the body interact biologically. While Descartes learned a lot about the workings of the circulatory system from Harvey (Descartes, 1966, p.111), he did not accept Harvey's contention that the heart worked as a pump. Descartes held that the heart heated and rarefied the blood and that the movement thus caused made the heart beat (1966, p.112). To give a simplified account of the movement of the blood, the rarefied blood moves upwards towards the brain, but only the most rarefied parts can enter through the pores in the brain. The rest is redistributed throughout the body. Now these most rarefied parts Descartes calls animal spirits. These animal spirits are very small and very quick (Descartes, 1966, p.113), but they do not move in the same way in which the nerves react. They move quickly, but they still take time to go from place to place. These spirits are found in the cavities of the brain and in the tubes around the nerves and in the muscles. They are continually on the move. They travel down the tubes which surround the nerves and cause the muscles to move (Descartes, 1966, pp.110-113). They can be stimulated by the nerves in the brain to send signals to the pineal gland, or they may react autonomically to nerve impulses or to the movements of other animal spirits (Descartes, 1966, p.117). In the case of vision, light is reflected from an object and enters our two eyes. The nerves are stimulated and immediately the message is received in the brain. The animal spirits react to the stimulation of the nerves and are sent to the appropriate part of the pineal gland, the main seat of the soul, and bounce off it in reaction to the response of the soul through the gland (Descartes, 1966, p.126). Those animal spirits which were stimulated by signals relating to the same part of the object being viewed meet at the same point on the pineal gland, and the others at different places (Descartes, 1966, pp.125-126). Thus the image is unified and given to the mind whole.
The question then is why does Descartes take on this complex relationship between mind and body? The answer is that the simple direct reactions of the nerves could not explain our experiences of the world and ourselves. The mere relaying of information to the pineal gland and thence the soul would not arouse emotions, which are bodily and are felt in the heart even though they originate in the soul. But the disruption in the animal spirits caused by some event or state of affairs 'serve[s] to widen or narrow the orifices of the heart, or to push toward it, in various ways, the blood that is in the other parts, or to maintain the same passion in some other manner' (Descartes, 1966, p.127). Or take the case of day-dreams. The soul is not responsible for them, since they are not directed or willed. They arise, because the animal spirits become directed by previous impressions in the brain. They 'seem to be only . . . the . . . shadows and pictures of previous perceptions' (Descartes, 1966, p.119). If human beings are to be more than just information processing and sorting machines, then there needs to be an internal system which can arouse passions such as joy or anger in the soul (Descartes, 1966, p.120) which can feed back on itself and provoke automatic responses of fight or flight (Descartes, 1966, p.126). This requires a free floating system such as the constantly moving and reacting animal spirits. For Descartes, all of the passions of the soul are caused by the movements of the animal spirits (Descartes, 1966, pp.121-122). And yet as in the case of day-dreams the body may produce images and thoughts of a kind. Descartes calls the passions of the soul, thoughts, ideas, sensations and emotions (1966, p.122). They are confused because of the union of mind and body.

We are now in a position to say why Descartes is not interested in giving a clear definition of 'ideas' and telling us whether they are corporeal or incorporeal, propositional, conceptual or symbolic. It is because the mind and body are so intimately bound up together that there is no one simple origin or nature of ideas. Ideas are seldom simply the product of mind or body or world. Ideas themselves are all very different phenomenologically. We may have ideas of God or of red or of pain.
all of which seem equally trustworthy. While we are embodied, we are the embodied self in the world, not the soul stuck with a body. Our soul is one with the body - all of the body - and so all bodily sensations are ideas.

It is in this context that we may explain innate ideas. And it is in the context of innate ideas that we may better understand Descartes’ idea of ‘idea’:

any man who rightly observes the limitations of the senses, and what precisely it is that can penetrate through this medium to our faculty of thinking must needs admit that no ideas of things, in the shape in which we envisage them by thought, are presented to us by the senses. So much so that in our ideas there is nothing which was not innate in the mind, or faculty of thinking, except only the circumstances which point to experience - the fact, for instance, that we judge that this or that idea, which we now have present to our thought, is to be referred to a certain extraneous thing, not that these extraneous things transmitted the ideas themselves to our minds through the organs of sense, but because they transmitted something which gave the mind occasion to form these ideas, by means of an innate faculty, at this time rather than at another. For nothing reaches our mind from external objects through the organs of sense beyond certain corporeal movements, . . . but even these movements, and the figures which arise from them, are not conceived by us in the shape they assume in the organs of sense, as I have explained at great length in my Dioptrics. Hence it follows that the ideas of the movements and figures are themselves innate in us. So much the more must the ideas of pain, colour, sound and the like be innate, that our mind may, on occasion of certain corporeal movements, envisage these ideas, for they have no likeness to the corporeal movements . . . what corporeal movement it is which can form in our mind any common notion, e.g. the notion that ‘things which are equal to the same thing are equal to one another,’ or any other he pleases; for all these movements are particular, but notions are universal having no affinity with movements and no relation to them (Descartes, 1969, pp.370-371).

What Descartes is getting at here is that the movements of the nerves that lead to the experience of colour or pain or sound are not themselves colours or pains or sounds. Since this is the case then the ideas of these things must be from the mind, or in these particular cases from the mind in combination with the body.
Gaukroger interprets this passage to mean that,

there does seem to be a crucial distinction to be made here between our innate disposition to have innate ideas and our innate disposition to have adventitious ideas. Actually, the latter is something of a misnomer, for what it seems to amount to is an innate disposition to respond to sensory stimuli in a particular way - by perceiving a colour, hearing a sound, experiencing a pain etc. Clearly one could have such innate sensory dispositions without innate ideas of God, or of the essence of matter, mind and triangles. Indeed, the mind proper does not seem to be at all relevant to the exercise of these dispositions or capacities: if I see something as being red, this is not because of some voluntary act of the will or some intellectual act on my part. I can, of course, exercise my judgement and ask whether the surface of bodies are really overlaid with colour, as they appear, but this is quite a separate matter. Innate sensory dispositions seems to be part of our cerebral psychology, and I cannot see any reason why minds should not have such dispositions, in Descartes view (Gaukroger, 1995a, pp.409-410).

Gaukroger cannot accept that the innate disposition for ideas and the innate possession of some ideas are the same thing, because he has not properly accepted the unity of mind and body which he himself acknowledges that Descartes teaches (1995a, pp.388-394). While this unity does not show that they are the same thing, it shows how it is possible that they could be. It is this possibility that shows how Descartes can bring together so many different uses of idea.

Now this has not helped us to explain how the idea of red can be an idea for us, but not for purely physical beings like animals who, according to Descartes, have no ideas at all. Of course, for Descartes, animals can experience colour and even make some inferences based upon this experience (Gaukroger, 1995a, pp.166-167). But does this amount to them having ideas of them? I would argue that it does not. To have an idea of red is different from simply experiencing red. The body makes the experience of red possible, and in this sense the body has an innate disposition to see red, the body is made to interpret certain stimuli as red, but the mind turns this
into an idea of red. This idea is something universalisable, abstractable and describable in terms of propositions. Obviously an animal could not think 'this is red' in any form, it cannot take red and deal with it by itself as an idea in itself, and so it cannot have the idea of red even if its sense experiences were precisely the same as ours.

Does this help to explain other more abstract ideas such as 'things that are equal to the same thing are equal to each other'? How is it that we call red an innate idea, when it seems to be the result of bodily stimuli that animals also have, while at the same time include amongst ideas things like the inference that if A=B and C=B then A=C. The answer is that the mind thinks these things consciously and creates them as ideas in the process. It does not think up red, but it does think red and hence make it an idea. Eternal truths are created by thinking essences. By thinking them we discover these essences as we create them. Descartes details this process in the following discussion of triangles.

And what I here find to be most important is that I discover in myself an infinitude of ideas of certain things which cannot be esteemed as pure negations, although they may possibly have no existence outside of my thought, and which are not framed by me, although it is within my power either to think or not to think them, but which possess natures which are true and immutable. For example, when I imagine a triangle, although there may nowhere in the world be such a figure outside my thought, or ever have been, there is nevertheless in this figure a certain determinate nature, form, or essence, which is immutable and eternal, which I have not invented, and which in no wise depends on my mind, as appears from the fact that diverse properties of that triangle can be demonstrated, viz. that its three angles are equal to two right angles, that the greatest side is subtended by the greatest angle, and the like, which now, whether I wish it or do not wish it, I recognise very clearly as pertaining to it, although I never thought of the matter at all when I imagined a triangle for the first time, and which therefore cannot be said to have been invented by me (Descartes, 1973, pp. 179-180).

Once the idea of a triangle has been invented, then the essence of a triangle has
been discovered and the logic of the triangle allows us to learn all about triangles. In order to do this we must first have thought the triangle in order to know it. The idea of a triangle and the eternal truths associated with it are not present to us as ideas prior to conscious thought, but the mind discovers the eternal truths within whatever is imagined or thought in the very act of thinking these truths. This is what thought does. This is not based on experience but on thinking about experiences and objects. But I do not create these truths in the sense that they are simply subjective, rather I create them just as everyone else does who is allowed to think of them without the bonds of prejudice or bodily impairment. I discover these truths as I create them, even about imaginary beings. 'That conceptions which are perfectly simple and clear of themselves are obscured by the definitions of the schools, and that they are not to be numbered as amongst those capable of being acquired by study [but are inborn in us]' (Descartes, 1973, p.222 brackets his). But in what sense are they inborn? The answer to this question will take us away from Gaukroger as we explore Descartes' positive doctrine of innate ideas and its implications.

In the history of philosophy 'ideas' moved from being external independent realities in Plato, to being inside God's mind as his ideas in Augustine. Descartes also accepts that essential ideas are also in God's mind. Descartes took the ideas that were in God's mind and made humans capable of deducing them for themselves. The thinking of these essences puts us in touch with 'real' reality, past material boundaries and into God's thoughts. This is no mere abstract realisation of the truth, but an experience of it. We actually possess these essences within us. According to Lovejoy, Descartes accepted the principle of plenitude (that anything which is capable of existing in fact does exist, because God creates all he may create to the

\[26\] For a more detailed discussion of this see Chapter Seven.
limits of his power. So even if we do not have all in our world, all none the less exists somewhere among the infinite planets in creation). Hence whatever we may imagine as possibly existing does in fact exist somewhere in the universe (Lovejoy, 1978, p.123). This overstates Descartes' position. Descartes is clearly open to the possibility of an infinite universe and of a multitude of creatures other than we know, but he does not find sufficient evidence to commit himself to such a position (Descartes, 1970, pp. 292-296). In any case it is a radically different kind of plenitude if it is one at all. For Descartes, it is God who determines what is possible and impossible. The impossible could have been different if God had so willed it (Descartes, 1966, p.225). So there are no objects or creatures which God must create or that exhaust the possibilities of what God can create. Even if God determined to create all that could be created given the restrictions of this universe Descartes does not think that we can know this for certain. We thus have access to ideas that we have not seen or that may in fact not exist. We may imagine something and derive necessary rules for them. We may go beyond the world of our experience and discover truths for ourselves. The entirety of the universe of the unknown must be capable of being made into ideas, and surrendering their essences to us. Even though God thought of these objects first, we create them in exactly the same way as God did: by pure thought.

In order to explain to his readers what he means by innate ideas, Descartes makes an analogy with innate qualities of families. Some families have a tendency to develop certain diseases. In this sense these diseases are innate to the members of the family, even though they are not born with the disease. These innate ideas are not to be distinguished from thought itself. 'For I never wrote or concluded that the mind required innate ideas which were in some sort different from its faculty of

27We do not have the space to explore this further, but it is suggestive that this opens the doorway for Hegel, through Kant's reworking of Descartes' ideas into the structure of thought and not in acts of thought, to make ideas immanent. If the thoughts of God are in the mind of humans and these reflect the essence of objects, we may dissolve them all into one.
thinking' (Descartes, 1983, p.370). The conclusion of this is not that we need experience to produce ideas since this implies that the mind is passive. The mind is active of itself. While it may be stimulated by extended objects, the nature of what is thought is not a product of this stimulation but rather of thought. In this context, we can understand what Descartes meant when he wrote to Princess Elisabeth of Bohemia that we have certain primitive notions on which all knowledge is built. Notions such as 'existence, number, duration, . . . extension, . . . shape and movement . . . consciousness' (1970, pp.275-276). These notions are not preformed ideas, but rather thoughts which the mind will think given the nature of its existence and its union with the body. He does not say that these notions are given to us prior to thought, but that they are primitive to all other thoughts. Now notice that Descartes does not speak of faculties of thinking, but the faculty of thinking. It is not that there is a place somehow set aside in the mind that will produce the ideas of colour, given the appropriate stimulation. It is thinking itself which does these things. Particulars are the result of thought's interaction with the body given stimulation, while universals are the result of thought itself reflecting on particulars. Now we should not think of this as Leibniz did as 'prefigured, in some undetermined sense, in the mind's structure' (Copleston, 1985, p. 17, Book II, Vol. IV). For Descartes, the mind is indivisible. 'When I consider the mind that is to say, myself inasmuch as I am only a thinking thing, I cannot distinguish in myself any parts, but apprehend myself to be clearly one and entire' (Descartes, 1973, p.196). So the mind cannot have a structure which is hidden and waiting to emerge given the correct stimulation. The mind is single, and open to itself.

What then are innate ideas dependent upon? They can only be dependent on the conscious construction of ideas. Since there are no hidden parts in the mind, there can be no unconscious development of an idea which mediates our experiences and only comes to light when we think about it. For Descartes, thinking is not an
unconscious process. It is only what we know that we know that, in fact, we truly know. We can see this working in another of Descartes’ discussions of triangles:

consider a three-sided figure we form a certain idea which we call a triangle; and we afterwards make use of it as a universal in representing to ourselves all the figures having three sides. But when we notice more particularly that of three-sided figures some have a right angle and others have not, we form the universal idea of a rectangular triangle, which being related to the preceding as to a more general, may be termed species; and the right angle is the universal difference by which right-angled triangles are distinguished from all others. If we further observe that the square of the side which subtends the right angle is equal to the square of the two other sides, and that this property belongs only to this species of triangles, we may term it a [universal] property of the species. Finally if we suppose that certain of the triangles are moved, and others are not moved we should take that to be a universal accident of the same; and it is thus that we commonly enumerate the five universals, viz. genus, species, difference, property, accident (Descartes, 1973, p.243).

How, one might ask, does this differ from empirically derived universals in the manner that Locke describes? For Locke universals are abstracted away from the experience of many individuals by taking note of what is common between them (Locke, 1969, p.235). Such ideas do not become universals unless one can find the necessary connections in complex ideas in order to discover its essence. For Locke, the substance a thing is made of is a mystery. Hence the abstract ideas that we make about a thing do not give us this thing’s real essence unless there is a necessary connection between the abstract ideas. So for instance, the idea of gold includes the abstract ideas of it being golden in colour, and its being malleable, but unless we can show why being golden should result in its being malleable or vice versa we have not made any progress into the actual nature of gold (Locke, 1969, pp. 334-336). For a universal to be true ‘the terms used in them [must] stand for such ideas, whose agreement or disagreement, as there expressed, is capable to be discovered by us. And we are then certain of their truth or falsehood, when we
perceive the ideas the terms stand for to agree or not to agree, according as they are affirmed or denied one of another' (Locke, 1969, pp. 342-343). Hence could anyone discover a necessary connection between malleableness and the color or weight of gold, or any other part of the complex idea signified by that name, he might make a certain universal proposition concerning gold in this respect; and the real truth of this proposition, that *all gold is malleable*, would be as certain as of this, *the three angles of all right-lined triangles are all equal to two right ones* (Locke, 1969, p.336).

The difference then between Locke and Descartes on the creation of universals is that Locke must go from the experience of many individuals to form abstract ideas, and from these necessary relations may be discovered. If there are, then we may be certain of the truth of our universal propositions, whereas for Descartes, unprejudiced or bodily unhindered reflection on the first instance of encountering something can generate universal laws about it. For Descartes there is nothing in objects which can hand over universals to the mind. Universals must be generated by the mind at whatever point this occurs no matter how many instances of an object or concept have been previously encountered. Prejudices may prevent us from perceiving these eternal truths, but if we were free of prejudice we would all produce the same universals. If we are guided by the light of reason and not by the light of tradition, reason will show everyone the same truths.

Empirical derivation of essences is impossible for Descartes since essences are not in fact *in* objects. There is no problem of induction in Descartes, for even if you had every instance of a triangle before you, you could not empirically derive any more from them than you could from a single triangle. Descartes makes a clear distinction between things that exist purely in the mind and those that are only of extended matter, that is the material world. Now he also says here that 'eternal truths hav[e]... no existence outside our thought' (Descartes, 1973, p.238). Such truths are 'not to be considered as an existing thing, or the mode of a thing, but as a certain eternal
truth which has its seat in our mind, and is a common notion or axiom' (Descartes, 1973, p.239). Hence eternal truths do not exist in things. They are distinct from matter and are not found anywhere in extended things. The order of essences is not the order of objects, it is the meaning of the objects. So when Brehier points out that Descartes rejects the hierarchy of essences (Brehier, 1970, p.197), this does not mean that he rejects the hierarchy of being. With the exception of God, essences are equal, because they are ideas and because they are true. Actual being though is obviously, for Descartes, arranged in an order of perfection and imperfection. But this perfection is not to be understood as being like the complex scholastic system, but much more straightforwardly, as an order of spiritual perfection. The inanimate world, animals, humans, angels and God. Even here Descartes counsels against supposing that other creatures might not be superior to humans. We simply do not know (Descartes, 1970, p.295).

But what of the idea of God. Is that the result of thought, or is it given to us in some other way? In order to answer this question we must first answer another one: why can't the pure soul think anything spatial? Because it cannot receive spatial input from anywhere. Only when it is united with the body may it receive the body's impressions. The body holds the idea in its corporeal memory, since the soul is not suited to deal with such ideas. What allows someone to think geometrically is the organic link between the soul and the body which unites reason, senses, corporeal memory and the imagination. How then does God think the world if God is spirit? In order for this to be the case the world must proceed from spirit. What we perceive as its essence is manifested in reality by God creating it, not with the essence hidden away inside it like a genetic code but by the essence causing the object to be what it is. In objects the essence must be discovered through the object. Now the object may express the essence, but it is much more than this. Just as we may know both an object and an essence because we are both body and soul, so God may know both because he creates both. Since spirit is prior to matter, its creation is much less
of a challenge than creating the essences which express these things. We can only abstract away from something after we have that thing. There is no such object as God that we can find anywhere in the world. But the idea of God that Descartes has is not like that of an essence, an abstract idea like that of a rock whose reality is in its touch and weight and look etc. Hence we must experience the positive perfection of God in some way other than intellectually. It is not the cold passionless vision that goes with the foundational metaphor and clear and distinct ideas. But the world that God creates is not built bit by bit, but as one 'organically' linked whole. It is not held together by intuition or logic, but in actuality. Each idea is bound to every other one by God and not by human intelligence. It is a beautiful machine, the workings of which God fully understands. In God the mechanical and organic join together.

The idea of God is one that cannot be created, it can only be discovered because it is placed there, by God, for us to find. Let us anticipate Chapter Seven's presentation of the argument for God's existence which involves the reality of the idea of a stone. Descartes argues that when we experience a stone, even if there is no actual stone producing this experience, whatever it is which gives us this experience must have at least as much reality as the stone. It is clear here that the idea of the stone is not an abstract and cold concept or enumeration of 'stonely' qualities. Such things would imply no reality to either stone or what caused us to experience the stone. What Descartes has in mind is the experience of the stone: its weight; its texture; its heat; its shape etc. Descartes then goes on to argue that the idea of a positively perfect God must be produced by a being which is at least as perfect, and that must be God. This idea cannot then simply be the concept of positive perfection. Anyone may imagine such a thing. What Descartes is talking about is the experience of God. An experience which is bound up with the idea of the self. He cannot understand the idea of himself without also having the idea of God. The two are experienced with the same reality.
The initial eternal truth - that of 'I think, therefore I am' - provides an intimate union with the self. But, at the same time the thinker is aware that they are not complete. We feel the absence, and therefore the presence of completion by being ourselves, but we also feel a sense of perfection which is not ours: a form of perfection which cannot be explained by our feeble lack. Our sense of self, which is a perfect union of self and self, in fact reveals that this unity is limited by otherness and is therefore not the essence of perfection. However, to meet God is not just to say I am imperfect so God must be all I am not - that is, perfect - as a logical condition for feeling imperfection. Rather, my experience is of a positive perfection which I do not possess and which overwhelms me. It is not something I can reach, no matter how thoroughly I negate myself. If it were merely a negation then I could have this concept of perfection, but it is not just negation, it is the experience of an essence of something perfect in every sense, that, being contained in the idea of the self, and therefore of the other, exposes itself as not being from the self or from anything in this plane of existence. This is why the idea of God must be placed in us by God. It cannot be claimed positively or negatively from our existence. So neither God, nor the world, nor objectivity are cold when thought of correctly in terms of essences.

This brings us to one of the most overlooked aspects of Descartes' philosophy. Everyone is well aware of the foundational metaphors which Descartes uses. Descartes speaks of knowledge as a building which must be carefully put together piece by piece (Descartes, 1969, pp. 121-127, p.165). This metaphor is so dominant in the understanding of Descartes that Margaret Wilson's collection of Descartes' writings The Essential Descartes, has on the front piece the heading 'Descartes . . . The Architect of Modern Philosophy' (Descartes, 1969, p. i). But while the building metaphor is given prominence, another metaphor is also present. This is a metaphor we have mentioned before, the metaphor of the tree. The two metaphors seem to be opposed. One holds knowledge to be like a construct, a building, and the other like an organic whole, a tree. The first is precise with straight lines carefully created by
placing the bricks of knowledge on each other with the precision of clear and distinct ideas. The second suggests more flowing lines, each part moving into the next. These two images can be reconciled by taking note of what aspect of knowledge they refer to. The image of the building refers to our acquisition of knowledge. The careful isolation of truths and their assembly on a firm foundation. The metaphor of the tree however refers to the actual pre-existing relations of knowledge. Knowledge of this world as God knows it. On the first metaphor, there should be no room for the kind of conflation of categories that Gaukroger complains about. Each part must be carefully separated and clearly defined. This metaphor is, however, an inadequate model of knowledge, even without what Descartes says about embodied existence and the nature of ideas. We cannot, however take this metaphor to be the way that knowledge exists. Even the laws of nature which bind things together in reality, are themselves pieces of knowledge and so are like bricks to be added to our building of knowledge. These laws cannot then be a guide to how to put the building together. It merely represents the order, both logical and temporal in which it is discovered. The actual parts of knowledge flow into each other and are bound together with something much stronger than our intuitions. This order of knowledge is strong enough to cope with the way that essences are confused in the reality of this world.

It is God who knows the world fully, and holds it together, and it is in him that such problems are resolved. For God, the world is the perfect expression of his ideas. This is an experience which we cannot have. The link between ontology and epistemology is imperfect for us, but for God there is no distinction. Our world of knowledge is piecemeal and incomplete, and yet in so far as it is restricted to essences and/or the quantifiable, it is precise, definite and cuts across the crudities of material experience. But for God there is no cutting across; all of the pieces fit together in a 'living' whole. It is in this context that Descartes does his work and understands that the mysteries of the world are not indications of the failure of method, but of the limitations of humanity. Here we have Descartes bringing together
his desire for a unified conceptual world, a world of shared ideas, with a unity of deep experience which rather than promoting an arrogance and authority that would divide, tries to keep us from hubris by reminding us of our limitations. Despite himself, Gaukroger, on this issue takes Descartes out of his world and places him in our universe where the only difference between the model of discovering knowledge and the achievement of ideal knowledge is a matter of time.

We cannot yet discuss the implications of all this. For the present it is sufficient to consider that for Descartes each discovery is also a creation. For some this was too much; it is an affront to God: Malebranche specifically denies this possibility (Copleston, 1985, p.193, Book II, Vol. IV). While for others, Descartes' creative innate ideas had become pregiven ideas in the mind. By 1671, when Locke wrote his *Essay Concerning Human Understanding*, in which he attacks the notion of innate ideas, both Platonic and Cartesian (at least as he understood it) (Copleston, 1985, p.74, Book II, Vol. V) he could say that some men count it as well established and that there is no opinion about the nature of human understanding,

more commonly taken for granted than that there are certain *principles*, both *speculative and practical* . . . universally agreed upon by all mankind: which therefore, they argue, must needs be the constant impressions which the souls of men receive in their first beings, and which they bring into the world with them (Locke, 1965, p.31).

Locke's empirical alternative, which says that we get our ideas from the world and from generalising from our experience of the world, implies that there is knowledge in the world waiting to be found, inherent in the objects themselves. Both of these positions rely on ideas being given to us and us then discovering them. For Locke, knowledge is not simply about the human formation of ideas. For while Locke says that 'Knowledge . . . [is] the perception of the connection of and agreement, or disagreement and repugnancy, of any of our ideas' (1969, p.299), and further that
knowledge is 'the view the mind has of its own ideas, which is the utmost light of
certainty we, with our faculties, and in our way of knowledge, are capable of' (1969,
p.304), this is not the end of the matter. Since simple ideas are given to us by our
experience of the world and complex ideas by the mind combining these simple
ideas, we may ask how we know that our ideas are 'real' and 'have a conformity with
real being and existence of things' (1969, p.209). The answer which Locke gives is
that

though whiteness and coldness are no more in snow than pain is; yet
those ideas of whiteness and coldness, pain, etc., being in us the effects
of powers in things without us, ordained by our Maker to produce in us
such sensations; they are real ideas in us, whereby we distinguish the
qualities that are really in things themselves. For, these several
appearances being designed to be the mark whereby we are to know and
distinguish things we have to do with (1969, p.209).

So God has made us such that our ideas do reflect the way the world is. Our
experience of simple ideas does give us knowledge which we read off the world. But
this seems to be a less modern position than the one Descartes offered, for it allows
for the creation of true ideas simply by the power of thought. In saying this, we
should be careful to distinguish what Descartes was doing from what an idealist like
Fichte was saying. For Descartes we cannot discover the world simply by pure
thought. We create what is already possible, given what God has made, and for the
most part what we create already exists. Why was there then this shying away from
the possibility Descartes offered to us of being able to create essences, some of
which do not exist except in God's mind, in favour of a type of knowledge which
makes us dependent on knowledge being given to us? Descartes' position appears
in some ways to be more empowering and therefore a more modern position.
Descartes' approach is more empowering in that it offers the individual more
autonomy in relation to knowledge. There is however a price to be paid for this.
Ultimately this ability depends on the existence of and reliance upon God. But as we will see in the next chapter, autonomy gained through the community of reason (scientists and philosophers) is in some ways more restrictive than that which Descartes offers. The question is not why did modernity take up the kind of autonomy offered through the community of reason (which was practically needed in any case) rather than Descartes' idea of the creation of essences, but why they should become alternatives to each other at all. The problem of autonomy is modernity is very complex, and we will be concerning ourselves with only a small part of it: that part which helps us to see why Descartes' option was not taken up, but that others, which restricted autonomy more, but which did not include God, did. This will lead us to discover in Chapter Six, that the alternative to God is the creation of a hidden god. For the moment we must be satisfied with the minor answers to this question. If innate ideas are created as they are discovered and this can be done because they are God's thoughts but are not present in the objects themselves, then this position requires God to make it work. As we have seen, such an explanation was unacceptable to many post-Cartesian thinkers. This answer however excludes the modern ability, which we have already seen in relation to the modern use of Descartes, to transform his ideas into something acceptable while still dealing harshly with the aspects of his thought which it does not like. The question then is why was this option not taken up by modernity? Why not find a way to gain the autonomy which Descartes offered while finding a way around God. As we will see this is effectively what happened.

Before we can see how this happened we must further explore the relationship between the mind and its objects. Consequently in the first part of the next chapter
we will try to gain a better idea of the intuitive nature of the natural light of reason. In the second part we can then consider how this intuition works when it moves away from the individual thinker, to the community of scientists. By looking at the modern understanding of the idea of the subject, we can apply what we have learnt from Descartes on intuition, to solving the question at hand.
PART TWO: THE SPECTRE OF DESCARTES.

Chapter Five. Descartes' Hermeneutics: Dogma and Truth.

In Part One we saw that Descartes' doctrines had been misunderstood and the complexity of his system and ideas had been pared back: his concept of reason had become logic and external demonstration; the cogito was turned into the subject, and; God moved increasingly to the periphery of the rational universe. In this part we will try to offer some reasons as to why this happened, beginning with the problem of autonomy we were left with at the end of the last chapter.

At the end of Part One we asked what it was that had made modernity accept an account of autonomy which was both linked to, and dependent upon nature and the community of reason. The point was also made in Part One that modernity's relationship to Descartes was ambiguous because he both laid the groundwork for it, but had many of his doctrines rejected by it. We will see in this part that the reason for both of these problems stems from the method of entry which Descartes provides to his rational united universe. While modernity tends to reject many of Descartes' doctrines because they cannot be defined clearly or verified experimentally, they do this because they have the confidence that the universe will yield itself to reason and experiment. In other words they do so largely within Descartes' universe. This leads to problems in interpreting Descartes. Without taking into account the context in which he was writing, we will tend to accept his arguments as if they were those of an enlightenment thinker: someone determined to sweep all of the past behind them and begin again correctly. While Descartes is clearly the father of these thinkers, he is not one of them. He does want to sweep all before him, but not to destroy all that went before but rather to find a firm foundation for most of what was there before, and to dispose of the rest. As he says in the Discourse about his discoveries in the Dioptrics and Meteors,
And I do not even boast of being the first discoverer of any of them, but only state that I have adopted them, not because they have been held by others, nor because they have not been so held, but only because Reason has persuaded me of their truth (1983, p.152).

So those who try to read him as an enlightenment figure will not understand him at all. In fact he will come to look like a fool.

This chapter will then work on two levels. The first will try to take us closer to answering the questions posed at the start of the chapter. Through an examination of Descartes' doctrine of truth and error, we see more clearly the place that authority can have in claims to be free and autonomous. This discussion is mediated through the critiques of Descartes' position by Caton, Williams, and Gadamer. It is in their attitude to Descartes that the chapter gains its second level. Caton and Williams are part of the analytic tradition which accepts many of the enlightenment's assumptions. They read Descartes as if he were an enlightenment thinker. The result is that he comes to look like a fool. On their accounts it is difficult to see why anyone ever took what he had to say seriously. On the other hand we find that Gadamer, an post-enlightenment thinker, while also misunderstanding Descartes because he too takes him to be an enlightenment thinker, gives us the necessary insights to unlock what Descartes is actually saying. This helps us to see the value of anti-enlightenment thinkers such as postmodern philosophers in coming to understand Descartes. This is not because they understand Descartes - because, like Gadamer they read him as an enlightenment character - but because their critique of modernity and the enlightenment opens up space for us to see what Descartes is doing. That is, they help to dismantle the interpretative net which modernity will try to take to the understanding of Descartes.

So to this chapter's guiding problem: why does modernity prefer a concept of autonomy that involves the authority of another? Descartes' theory of truth and error
can open the way for us here since it brings together the ideas of knowledge and authority. It is not easy to see this with just a cursory examination however. This is why Caton and Williams are so useful to us here. Their logical devastation of what they believe to be Descartes' account, brings to light what are the key problems in making sense of his ideas on the relationship between truth and error. Before we look at them it might be well to remind ourselves of some important related issues.

Descartes tries to firmly establish a foundation for knowledge while at the same time keeping it from being possessed by any institutional power. In order to achieve this, he attempts to reveal the universe as an open irreducible universe: a universe where complete knowledge is in principle impossible. This is not a conscious construction in the face of the evidence, but rather a picture of the universe as he found it. He did not try to make things easy for himself by filling in the cracks in his system. Where he found that a crack existed, he left it precisely as he found it. Commentators like Caton and Williams find the gaps in Descartes' theories to be signs of inadequacy rather than signs of a genuine commitment to the universe as he discovered it. Both Williams and Caton criticise Descartes for making the task of judgement much more complex than it needs to be. But this is because they have accepted that knowledge and truth and reason are transparent ideas. Caton's and Williams' assumptions about the nature of judgement, and about what Descartes was doing, lead them to misread Descartes and so miss what is in fact an analysis of the nature of judgement that would have prevented them from reading their own cultural assumptions into Descartes, and into the 'natural' and transparent nature of judgement.
a) Hiram Caton

Hiram Caton takes Descartes to be an enlightenment thinker, and so he assumes that Descartes shares some of his basic beliefs. Consequently he cannot bring himself to believe that Descartes takes the claims of religion seriously. He accepts Gilson's argument that Descartes' *Meditations on First Philosophy* is 'a "tissue of borrowings" from theologians ancient and contemporary' (Caton, 1975, p.97). But unlike Gilson, who argued against the then current dogma which held that 'the scholastic edifice of the *Meditations* is but a "flag to cover the goods," namely, Cartesian physics' (Caton, 1975, p.97), Caton holds that they were in fact designed both to conceal what was really present and to put forward to careful readers the idea that revealed religion was absurd and insupportable. Caton puts forward an analysis of Descartes' theory of error as a way of demonstrating this.

Descartes' account of error is, on first acquaintance, an odd one. Descartes seems to argue that the process of coming to believe or disbelieve that something is true or false involves the understanding being brought to a point of knowing either that something is or is not the case. So far this does not seem odd at all. But then Descartes adds another step which is that the will then decides to accept or reject, that is to believe or disbelieve, what the understanding has understood. While this is the accepted account of Descartes' theory, and certainly the one which Caton (as well as Bernard Williams) accept, it badly misses the mark. But we must see what Caton (and Williams) makes of this account before we can proceed further.

Even though Caton (and Williams) believes that Descartes' motivation for dividing will from understanding was to find a way out of making God, our creator, the originator of the errors we make (Caton, 1975, p.90), Caton argues that the structure of the *Meditations* is designed to establish philosophy's primacy over theology. In order to
do this, Descartes creates a dilemma for the theologian in the character of the \textit{deus deceptor}. 'The alternative, deceiving God/veracious God, seizes the initiative from the theologians by posing a dilemma: either God ordains truth contrary to reason, in which case the enemy of faith, skepticism, reigns supreme; or he is veracious, in which case God is on the side of the philosophers' (Caton, 1975, p.96). Now since in any conflict between reason and faith theologians would put forward the priority of faith and not try to \textit{found} their claims of reason, then it follows that the claims of faith must go beyond those of reason. In fact, to accept the claims of faith is an act of will and not of reason. However, if we may be made to doubt all things except one, the \textit{cogito}, then we can see that 'The theological argument of the \textit{Meditations} - or to be precise, its argument with theology - is meant to restore the autonomy of reason. The \textit{cogito} discovers a necessary truth about the subject of the doubt which not even an omnipotent God can alter' (Caton, 1975, p.96). The fruit of this interpretation comes when Caton argues that, 'If error can be avoided by assenting only to clear and distinct ideas, and if, as Descartes says, the ideas of revealed religion are obscure because they exceed the limits of understanding, then it is sinful to be religious' (Caton, 1975, pp. 98-99).

However, in the passage Caton refers to Descartes does not say that the doctrines of revealed religion are obscure, rather they are 'quite above our intelligence' (1983, p.111). This does not mean that they cannot be understood, for indeed 'the road is not less open to the most ignorant than the most learned' (Descartes, 1983, p.111). The question is not whether we can understand \textit{what} is being said, but whether we can understand \textit{how} things work, how they are possible or \textit{why} they are as they are. For Descartes God is perfectly free to do what he wills, and so his purposes are above our intelligence to discover and so, 'It is self-evident that the aims of God cannot be known to us unless God reveals them' (Descartes, 1970, p.270). So while the how of God's revelation may be beyond us, and the why of God's purposes are
almost certainly hidden from us, none the less knowing why we are limited in our knowledge of such things is perfectly intelligible. In other words we can clearly and distinctly know the nature of God and of ourselves and so know that if God has revealed himself we must accept it and accept that much of what is behind this revelation will remain hidden from us. To believe this is then not sinful as Caton charges, but is rather our only rational response.

The real origin of Descartes' theory of truth and error, argues Caton, are the Stoics. The Stoic account is indeed very similar to that of Descartes. The point that Caton is making by pointing this out is a moral one.

Although the mind is so constituted by nature that it must assent to what is clearly perceived, it may, owing to passions and erroneous beliefs, attempt to resist that necessity, thereby engendering a condition of vacillating self-estrangement which the Stoics diagnosed as the state of the universe. The diagnosis points to the cure: it is within our power to will what is necessary, in this way achieving that harmonia between conduct and conviction which is the fruit of wisdom that "not even Zeus" can disturb (Caton, 1975, p.103).

Caton delivers a radical interpretation of Descartes' account of error in which he argues that Descartes believed that the understanding is not responsible for error. His interpretation is based on the idea that contrary to scholarly opinion there really was no important break in Descartes' approach between the publication of the non-metaphysical Regulae and that of the metaphysical and religious Meditations. The latter was simply a way of putting forward ideas that could not be accepted in the religiously dangerous world of the time. 'For if our reading is correct, Descartes uses that traditional theologicometaphysics to undermine the very beliefs that traditionally it had been used to defend' (Caton, 1975, p.97). Caton puts forward the view that the understanding is responsible for knowing the truth, it does not produce errors. To support this he argues that Descartes says that we do not need to make judgements about clear and distinct ideas, only about those ideas which are murky. Ideas other than the clear and distinct, which are judged to be correct can only be accepted by
the will since the understanding would know that the ideas were not clear and distinct and therefore could not be made to accept them. Caton says that, 'At no point in the *Meditations* does Descartes say that knowledge of truth requires judgement, whereas he affirms throughout that the commission of error does' (Caton, 1975, p.93). This is simply untrue. What Descartes does say is that in the case of truth, judgement and knowledge are brought together naturally (Descartes, 1966, p.86). Caton has assumed that since we inevitably come to judge a truth as truth, that the will is excluded, but this is to treat all occasions of judgement as equal, that is, to remove the context in which judgements are made. On a traditional reading of Descartes, this would make sense. The mind is transcendent and unless the body interferes, all judgements are equal. But in fact, as we will see after we have drawn from Gadamer's account, the context is vital for the consequences of judgement. Since Caton's interpretation depends on there being no difference between contexts of judgement when all bodily conditions are optimal, if it is shown that this is not the case, Caton's interpretation will fail.

In order to make his case, Caton seeks to show how the understanding is taken out of the equation. Caton therefore argues that Descartes makes the body responsible for error, in the form of desires and wants and needs and physical defects. However Caton is confused when he says that in the sixth *Meditation*, Descartes attributes errors to the body when he says that they are caused by 'appetites and passions, i.e., to the will' (1975, p.89). In doing this the will is reduced to desire. But the will is much more than this. It is part of the mind and of the intellective process. While Descartes makes the body responsible for some epistemological problems, such as the acquisition of prejudices during childhood and errors made due to sickness, it is not, for him, the source of error. Further, in the case of fever we do not properly make judgements about truth, we are delirious and neither the will nor reason is involved. However it should be noted that for Descartes it is the misuse of the will that makes us accept things as truths which are not true, due to bodily infirmities or
desires. However awareness of our bodily conditions should lead us to withhold judgement.

For Descartes, will and understanding are not so easily reduced to body and mind, nor is will reducible to desire and understanding to pure transcendent thought. It is the unfolding of the method which gives both the possibility of necessary knowledge and the possibility of choosing against it. This sounds paradoxical, but it will be explained. For now we can simply note that as we proceed towards the clear and distinct, our will is automatically brought into line with our understanding, but our will also has a role in choosing what our understanding will do.

The origins of Caton's radical interpretation are to be found in some of the standard moves of modernity. Caton cannot accept the idea that Descartes can be philosopher, scientist, and also religious. Since he is unquestionably a scientist, and his philosophy brought the human mind to the centre of the universe, the latter must be reduced to the former. This fits perfectly with Caton's acceptance of the idea that the cogito is the subject. This removes context from judgement: since the will is not part of the cogito and so is part of the body, it is the body which causes epistemological problems. The mind has its choices made for it by the presence of truth. Paradoxically then, Caton's position which upholds the standard view on the mind body split in Descartes, leads to the reverse of Descartes' position. The body becomes the realm of free will and the mind becomes a machine which inevitably knows truth. The rejection of religion and the reduction of the subject to the cogito in Caton, make the ghost in the machine into a meat computer (a common enough view amongst cognitive scientists and philosophers of mind).
b) Bernard Williams

In Williams we find a more conventional approach to Descartes from the analytical tradition. Because Williams is concerned with the strengths and weaknesses of particular arguments, and he assumes that Descartes' terms refer to clear and distinct objects, (confusing object and essence as Berdyaev says of modern philosophy) he thus finds problems and confusions which do not point to weaknesses in Descartes but rather to the faulty interpretive matrix of post-Cartesian thinking. This is why Williams is so useful here. He probes Descartes to the limits of post-Cartesian critique and pushes him into a seemingly impossible position. The discovery of Descartes' solution helps us to start to see the complexity of his philosophy, and the inadequacy of the standard interpretations. This solution also allows us to see the political character of Descartes' philosophy and the consequences of its suppression in the kind of reading which Williams as well as Caton, present.

Bernard Williams makes three basic points against Descartes' account of the will. The account Williams offers centres on the idea that the understanding is not responsible for errors. Even though the understanding is limited, if it remains within its limits, it will not make mistakes. The problem arises from the will, which is infinite. We misuse our will and hence make decisions too quickly, before we know enough, and so fall into error.

The first point Williams makes is that the will is necessary to make choices, to make use of other faculties. How then is it possible for the will to use or misuse itself? The difficulty can be divided into two problems: a) The minor one is that because the function of the will is to make choices it is not clear how can the will be said to be misused when it makes choices? Since the ability to make choices at all rests solely in the will, when a choice is made the will has been used correctly. To what then
does this misuse refer?; b) The major problem can be put in the form of the question; how can we will to will? Or is it 'that he has another will which is applied to the use of the first one' (Williams, 1978, p.170)? The problem Williams is pointing to here is that the will needs to be in some sort of self relation in order for it to be said to be misused (and hence used) by us. So right from the outset there seems to be a basic problem with the idea of a double-barrelled function for the will. You either will or you do not, therefore you cannot misuse your will, or decide to will without using your will.

Now if there is a problem about the idea of 'using' the will, Williams goes on to argue that there is a problem with Descartes' idea that the will is infinite. In what sense is it infinite? In the case of actions Williams argues that the idea that the will is infinite is wrong because we cannot choose to either do whatever we like, or to have happen whatever we want to happen. There are limits to our choices. So our will cannot be infinite in an efficacious sense. In what way then is it infinite? Not in terms of desire, for Williams says that for Descartes, willing proper is the province of the mind, whereas desire as emotion is connected with the body and so 'is at most one of the modes of the will' (1978, p.171). So if willing is a matter of choosing and not of wishing, how can we choose to do the impossible? 'I might like it to have been the case that such-and-such a horse won the last race, but I cannot choose that it should have done so' (Williams, 1978, p.171).

Williams argues against the idea that the will is infinite since this implies efficacious infinite power, if it does not then it means nothing at all. But Descartes does not say this. What he says is that the will 'consists only in our being able to choose a thing or not to choose it (that is, to affirm or deny, to pursue or shun it)' (Williams, 1978, p.168 quoting Descartes). So it is about choosing what to believe and choosing what to try to do or what one likes etc.. It is not about choosing to change the result of a horse race (or about choosing to be physically two dimensional, or other impossibilities). We may want it and so pursue it, but we cannot make it happen.
Williams spends a lot of time discussing the difficulties Descartes has in going from willing something to doing it. One reason that this problem arises for Williams is that he says at the beginning of the discussion that 'Desiring is at most one of the modes of the will' (Williams, 1978, p.171) and that desire that involves feeling is part of the body, 'whereas willing is not' (Williams, 1978, p.171) however, this makes the break between mind and body too clean. The feeling of desire arises in the body, but the will must choose what it will do about it. The will originates in the mind, but is acted on in the body, and gets many of its choices through the body. We cannot understand desire without the will. Since the mind is intermixed with the body then the will is often engaged with desire. We may experience lust or hunger or love or hate etc. but the choice to act on them is ours. Just as our desire to do anything is ours whether it comes from mind or body. So both will and desire are linked to the body. Once desire is inserted between possible action and actual, the problems which Williams points to disappear since infinite power is no longer linked to doing but becomes part of our everyday experience of wanting more than we can have, but settling for what we can do.

Williams, however, scores his biggest point in his discussion of the relationship between will and belief (which in the Meditations is of primary importance because as Williams points out, if God is truly a veracious [and good] God, then truth must be accessible and easily distinguishable from error). We will have to wait until after we have examined Gadamer before we discover Descartes’ answer to it. Williams argues that we really cannot just choose to believe anything we wish. There are some things which are unbelievable and no amount of will can make you believe them, while there are others which we must believe and cannot simply choose to disbelieve. Indeed, he points to many occasions when Descartes himself says that we cannot resist assenting to certain ideas, such as to the cogito. For Descartes, if something is clearly and distinctly perceived, then you must accept it.
Clearly and distinctly to understand the proposition about the angles of a triangle, for example, is to see that it is necessarily true. But once this step has been taken . . . the theory of assent is in difficulty. For in this sense I clearly understand a proposition - that is to say, I can see it is true - there is nothing else I have to do in order to believe it. I already believe it. The will has nothing to do which the understanding has not already done (Williams, 1978, p.183).

As Caton says, 'The puzzle here is that, by one kind of mental act, ideas are known to be true; by another, judgement, they are received or assented to, whereas ordinarily one would not wish to distinguish these acts' (1975, p.89).

Now this problem seems to be compounded by Descartes' seemingly contradictory statements on these issues. Williams quotes from a letter of Descartes' where he is trying to maintain that we are free to doubt even the clearly and distinctly perceived. In the *Replies* Descartes had argued, concerning clear and distinct ideas, that 'we cannot doubt them, unless we think them; but we cannot think of them without at the same time believing them to be true; as has been laid down; therefore we can never doubt them without at the same time believing them to be true; that is, we can never doubt them' (Williams, 1978, p. 180 quoting Descartes). And yet, his theory of assent seems to demand that 'it is always open to us (licet) to hold back from pursuing some clearly recognised good, or from accepting some perspicuous truth, if we think it a good thing that the freedom of our will should be displayed like this' (Williams, 1978, p.181 quoting Descartes). This seems to be a clear contradiction. Hence Williams can assert that

The ambiguities of Descartes's language about assent to basic certainties . . . can . . . be seen to be not accidental, nor mere looseness of expression. There is a structural ambiguity which underlies them: the theory of assent itself requires a step which cancels out the notion of assent (1978, p.183).
Now belief is related to understanding and the will since we come to believe after the will has acted. But because Williams makes the break between the will and the understanding too clean, he can say that because some things cannot be believed no matter how hard we will to believe them, this becomes a problem for Descartes. But as we will see in section d), after we have looked at Gadamer and so can start to draw the threads we have left over together, we do not believe, understand, or will in a vacuum. What is unbelievable is defined by what else we already believe. Caton, like Bernard Williams makes the distinction between the will and the understanding too radical. Descartes says 'we can judge of nothing unless our understanding is made use of, because there is no reason to suppose we can judge of what we in no wise apprehend' (p.233, 1973). So that the understanding and the will are involved in all judgements. In an obvious sense, the will is always responsible for error since it is involved in all decisions. But if the will is not tied to the understanding then it becomes completely arbitrary and the decisions we make have nothing to do with truth or knowledge, and the understanding cannot truly be credited with knowledge, since it is a mere matter of luck that the will has not leapt in already and decided that something else was true. Indeed, how can we know that we have achieved truth when we have no way of knowing if we have been lucky on any particular occasion?

While I have maintained that Caton and Williams have clearly misunderstood Descartes in some important ways, many of their arguments still seem operative and even decisive against him. Until it is established that the distinctions between will and understanding and those between body and mind are clear in essence, but united in practice, then the points made by Caton and Williams on the difficulty Descartes has in locating the site where assent is given remains. The answer to both the nature of these distinctions and on the relationship between will and understanding can both be answered after we have understood what makes it possible for us to be mistaken and convinced of the truth of our errors. This penetrates to the centre of the human
experience and therefore poses the problem of the universality and/or history of the self. In order to get to this point however, we need to go through Gadamer.

\(c\) Hans-Georg Gadamer

Gadamer attacks the enlightenment's attitude to reason, prejudice and authority. He places Descartes on the side of the enlightenment, and in fact makes him its representative. Descartes does not fit into the enlightenment very easily. In fact Gadamer's account misunderstands and simplifies Descartes to the extent that not only do his criticisms fail to hit home against him, but that Descartes' position is able to do damage to Gadamer's account. The value of studying Gadamer here is that the post-enlightenment case which he builds gives us an insight into what amounts to an post-enlightenment position in Descartes.

On Gadamer's account, Heidegger argues that interpretation is a circular act - the hermeneutical circle. We begin any interpretative act with certain assumptions and ideas about what we may find. The interpreter 'projects before himself [sic] a meaning for the text as a whole as soon as some initial meaning emerges in the text' (Gadamer, 1982, p.236). From this 'fore-project' the interpreter will understand what is read. From this understanding the project will be revised as more is learnt that either does not fit the initial idea, or that fills it out more, or some combination of both. Any initial understanding must be incorporated in later, fuller ones. There may also be a few possible interpretations that run parallel to each other until some evidence emerges that tells for or against each 'rival project' (Gadamer, 1982, p.236). In this process 'The only 'objectivity' here is the confirmation of a fore-meaning in its being worked out' (Gadamer, 1982, p.237). We must then be aware of the origins of our fore-meanings and examine them for legitimacy to be assured that they are not arbitrary. How do we guard against this when we do not know a lot of the hidden assumptions of our culture, or unconscious thoughts and feelings in ourselves, or
underlying tendencies of thought buried in our languages grammar, syntax, or lexicon? The only way to deal with it is not to reject these hidden prejudices, but to acknowledge that we bring them to any interpretive task, and that they are necessary to any attempt at interpretation, but then to also acknowledge that they will try to take us in directions that lead us to misinterpretations and so be as open as possible to the text and what it has to say. This means to be aware of what the text is saying and not try to squeeze it into any particular direction. When we see the text rebelling against our reading then we know that we are in danger of misinterpretation. This brings us back to being open to the text.

Heidegger tries to get into the fore-structure of our culture by analysing important points in the history of philosophy, where various conceptions were created and/or transformed. Thus we may see our own fore-structures, and those that went before in the creation and transformation of concepts. This counts against the kind of historicism which says that everything is relative to the time in which it occurs as well as that Hegelian variety which gives history a teleology: in other words historicism which has an underlying ahistorical outlook. Gadamer argues that historicism is dependent on the assumptions of the enlightenment, 'And there is one prejudice of the enlightenment that is essential to it: the fundamental prejudice of the enlightenment is the prejudice against prejudice itself, which deprives tradition of its power' (Gadamer, 1982, pp. 239-240). Against such historicism Heidegger's analysis shows that tradition and meaning continue over historical, economic, social etc. changes (Gadamer, 1982, p.239).

Gadamer argues that prejudice did not have a negative connotation until the enlightenment. Up until then it was a term which meant a judgement, given 'before all the elements that determine a situation have been finally examined' (Gadamer, 1982, p.240). This changed to 'unfounded judgement' (Gadamer, 1982, p.240) in the enlightenment. For the enlightenment, a judgement needs to have a basis, a
methodological justification (and not the fact that it may be actually correct) and it is this which 'gives a judgement its dignity' (Gadamer, 1982, p.240). That is, that it is a legitimate judgement.

The lack of such a basis does not mean, for the enlightenment, that there might be other kinds of certainty, but rather that the judgement does not have any foundation in facts themselves, ie that it is 'unfounded'. This is a conclusion only in the spirit of rationalism. It is the reason for the discrediting of prejudices and the claim by scientific knowledge completely to exclude them. (Gadamer, 1982, p.240).

This, Gadamer says, is following Descartes' method of doubt and excludes all that is not absolutely certain from knowledge. He then also points out that the possibility of historical knowledge depends on other sorts of knowledge and not on what is firmly founded. There can be no firm foundations in understanding history or culture. It requires that we take ourselves and our experience of the ordinary unfounded world as a foundation, e.g. we must understand the history of our culture, through what is true for us now, in this history etc. Gadamer says that the enlightenment divides prejudices into two varieties. There is the prejudice that comes from accepting another's authority and there is the prejudice of making over-hasty judgements (Gadamer, 1982, p.241).

The prejudice against prejudices must be removed in order to arrive at a real knowledge that acknowledges that all our knowledge is historical in nature and that 'Reason exists for us only in concrete, historical terms, i.e. it is not its own master, but remains constantly dependent on the given circumstance in which it operates' (Gadamer, 1982, p.245).

Hence Gadamer argues that education is based largely on tradition and is not founded on reason. It is dependent on the authority of tradition and the authority of the teacher. Education would not be possible if all that was taught had to be founded
first. Gadamer argues that both our choices of study and the results of this study rely on tradition, and that the results then become a part of the tradition. This is true of the human sciences, and therefore 'we have to recognise the element of tradition in the historical relation and enquire into its hermeneutical productivity' (Gadamer, 1982, p.251). However, Gadamer also says that natural science is different. 'Scientific research as such derives the law of its development not from these circumstances, but from the law of the object that it is investigating' (Gadamer, 1982, p.252). Hence the history of natural science is only of secondary interest to natural scientists. One may simply deal with the present state of knowledge. The chief difference between the natural and human sciences is then one of object. 'Whereas the object of the natural sciences can be described idealiter as what would be known in the perfect knowledge of nature, it is senseless to speak of a perfect knowledge of history, and for this reason it is not possible to speak of an object in itself towards which its research is directed' (Gadamer, 1982, p.253).

Gadamer argues that since we live in a world defined by 'family, society and state' (1982, p.245), long before we reflect or make judgements 'the prejudices of the individual far more than his [sic] judgements, constitute the historical reality of his being' (1982, p.245): the idea of an autonomous, objective, ahistorical truth is then absurd. 'That which presents itself, under the aegis of an absolute self-construction by reason, as a limiting prejudice belongs, in fact, to historical reality itself' (Gadamer, 1982, pp.245-246). There are positive and useful prejudices, but how do we distinguish them from 'the countless ones which it is the undeniable task of the critical reason to overcome' (Gadamer, 1982, p.246)? For Gadamer this must be worked out in such a way that reason is not given over to authority, but at the same time that the unfounded is not simply assumed to be incorrect. Gadamer points out that Descartes did not dispose of morality even though it was not yet firmly founded, because 'It is obviously unthinkable to prefer to wait until the progress of modern science provides us with the basis of a new morality' (1982, p.248). Hence some prejudices and
authorities are valuable. Yet the enlightenment is set up as opposing authority to reason and freedom.

Gadamer believes that 'there can be no doubt... that the real consequences of the enlightenment is different: namely the subjection of all authority to reason' (1982, p.247). The position of the enlightenment is that it assumes that the prejudices from authority must all be wrong. And this attitude is dependent on the belief that there cannot be justified prejudices. Gadamer however wishes to argue that indeed there can be justified prejudices (1982, p.247). How can we judge that all judgements made due to the 'narrowness of vision' (Gadamer, 1982, p.247) that comes from accepting authority are incorrect unless we are operating on the basis of a prejudice ourselves? In order to see what truths may be found even in authoritarian systems of belief we must discover what is properly meant by authority. This Gadamer sets out to do.

Gadamer says that authority is based on knowledge and hence its acceptance is based on reason. For Gadamer, authority 'rests on recognition and hence on an act of reason itself which, aware of its own limitations, accepts that others have better understanding' (1982, p.248). The person with authority has superior knowledge or intuition and this is recognised by others and so it is an act of reason to accept this authority. He goes on to say that it is a fact 'that authority cannot actually be bestowed, but is acquired and must be acquired, if someone is to lay claim to it' (Gadamer, 1982, p.248). Of course Gadamer is not saying that it is power which bestows a superior's answers with authority, rather it is the individual's superior ability which has led to them having authority.
But is what Gadamer suggests here reasonable? Simply because we recognise our limitations, this does not mean that we should simply accept either the official or traditional answer in the place of our limitations. To have no answer does not mean to accept any available answer, and certainly not the one proffered by those in power. But we should not think that the authority Gadamer has in mind is simply one in which we recognise someone as having superior ability or knowledge or wisdom, because they have an official position. It is rather one in which we recognise that the person who has official authority needs to possess superior ability, knowledge or wisdom if they are to carry out their authority properly.

Thus the recognition of authority is always connected with the idea that what authority states is not irrational and arbitrary, but can be seen, in principal, to be true. This is the essence of the authority claimed by the teacher, the superior, the expert. The prejudices that they implant are legitimised by the person himself" (Gadamer, 1982, p.249).

While in principle we may believe that there is a connection between the possession of institutional authority and the authority that comes from knowledge, the ability to carry out this authority, is by no means a necessary one. What Gadamer is asking us to do is to accept that it is rational to accept authority because it should represent ability. The implication is that failure to possess the ability which comes from a position leads to the loss of authority even if the position is maintained. Here we can usefully return to Bordo. Bordo pointed out that for Descartes the mind is ‘subject to mystification – that it can be caught up in states absolutely compelling... yet representing the world in an absolutely false way.’ (Bordo, 1987, pp. 20-21) Like dreams or madness systems of authority may create self-contained and compelling versions of the world that are none the less false. The problem is not single
authorities and single situations, but rather the system of authority which is set up and which help to make a world which cannot be negotiated without these authorities. It is not just a dream which may be a thoroughly convincing illusion, it can also be a world which is given its meaning through institutions and authorities such as scholasticism. Gadamer's defence of tradition and prejudice seems to be aimed at individual authorities and prejudices which leaves reason free to function. However against a system which defines reason in terms of itself, his criticisms have little to say. In fact, taking Gadamer's position that the person in authority has greater knowledge, this becomes part of the problem. If the knowledge that authorities have legitimates them as authorities, then as authorities, they legitimate the knowledge they present. This helps to create and perpetuate a systematic institutional authority since knowledge, power and authority strengthen and legitimate each other, and offer few ways in which to challenge or rethink institutions or their knowledge claims, especially for those completely within this system. It was such systems that Descartes and much of the enlightenment were opposed to.

Gadamer's conception of reason, as the enlightenment understands it, is very narrow. He assumes that reason is an external thing, like formal logic, which demands justification at every level. Hence prejudice must be excluded in principle since it relies on what may not be justified logically. Descartes' idea of reason differs from this. While Descartes does want to justify each step, the method of doing this is not external and 'machinic', but internal and experiential. Descartes' aim is not to destroy all ideas that are based on prejudice, merely those prejudicial ideas which cannot be also founded by reason. Not all authority or folk law or dogma will be done away with by Descartes. After they have been re-established by reason, they will be
changed into justified authority, scientific laws or medical knowledge or well established facts. Descartes does not suffer from the prejudice against prejudice if this means an automatic rejection of prejudicial ideas. What Descartes objects to are not the ideas themselves. These ideas may turn out to be true. What he objects to is their prejudicial and unfounded nature.

Descartes does not imagine that he can escape every prejudice, since there is simply not enough time to examine everything methodically in the way he would wish to do. He must instead 'be content to know what is most useful to us' (1970, p.283). While we may be able to know everything if we had time we must content ourselves to remove the most important prejudices and live with the rest. Descartes recommends to Princess Elisabeth a series of things she should concentrate on knowing which will, in the end, allow for the formation of good judgements (1970, pp283-286). We cannot completely free ourselves from prejudice, but we can acquire a method which enables us to be ready to examine anything and make a good judgement about it when the time comes. Gadamer has then over-simplified both authority and reason in his account. The point as far as Descartes is concerned is not to subject authority to reason, but to make authority reasonable. On Gadamer’s interpretation of the enlightenment, authority is subjected to reason, but reason is itself simply another prejudice, and so the attempt to free us of the authoritarian simply produces a more dangerous and intolerant form of authority. But due to his understanding of authority and reason, his position leads to a contradiction. Once reason has subjected authority, those who dispense this reason, both individuals and institutions, become the new authority. The problem here is authority and not reason. Reason is, according to Gadamer, merely a blind tool. In whose hands is it wielded? By those
attacking the authority as unreasonable. Thus reason is itself subjected to authority. In the hands of an institution or dogma, this narrow idea of reason becomes an instrument of control and not one of freedom. The fault is not that of reason but of its acquisition by authorities or its transformation and solidification through institutionalisation. Gadamer's solution, which is for us to realise that reason itself is based on prejudices and that we must use prejudices all the time in everyday life, does not get to the point at issue. Gadamer is surely correct to believe that individual cases of authority may well be based on ability and knowledge, however, in the case of an institution's system of authorities, those who attain positions of authority will almost certainly do so because they accept the systems ways of being and thinking. So within the system they can have the kind of authority that Gadamer is talking about, however, since such authority is unlikely to take a critical stand against the system it is in, we must ask just how rational such authority actually is. Since it is this kind of authority which Descartes and the enlightenment were reacting against, even if it was sometimes carried too far in conflating power with all forms of authority, Gadamer's case serves to add a cautionary note to Descartes' position, not to dismiss it.

For reason to be effective against this form of authority it cannot be possessed by any authority, but must rather be the possession of all. Such is the nature of the natural light of reason. From Descartes' point of view then the point is not to eliminate all prejudicial beliefs, but to test them to see if they are right or wrong. This then eludes Gadamer's critique of Descartes as sharing in the prejudice against prejudice of the enlightenment, but it also avoids the strongly conservative tendency
of Gadamer which seems to understand authority as if it were divorced from the structures of power that gave it its authority.

d) Descartes' Position on Truth and Error.

Now we will find that Descartes' actual position is much closer to that of Gadamer than that presented by either Caton or Williams. In the Meditations, Descartes argues that we can see that our faculties are limited. We can understand that we can know more, remember more, imagine more. But we cannot imagine what it would mean to have a greater will (Descartes, 1966, p.85). This is because we have the power to choose, even if we lack the capacity to make what is willed come to pass - we can still want it and/or try to do it. Now for a judgement to be free, it is not necessary that I choose between two things to which I am indifferent, for Descartes this is

the lowest degree of freedom, and indicates a deficiency of knowledge rather than a perfection of the will, for if the true and the good were always clearly apparent to me, I would never have to deliberate as to what I ought to judge or choose, and I would thus be entirely free, without ever being indifferent (1966, p.88).

So when we know the good or the true, we automatically assent to it. What prevents us from knowing is choosing to accept some things as good or true without sufficient knowledge. We choose the good or true freely, because they are at one with those things 'or because God has so disposed my innermost thoughts' (Descartes, 1966, p.86). Choosing the good and true is a matter of coordinating will and understanding, which are both parts of me and both seeking truth. He gives the example of coming to certainty of his own existence, 'I could not help judging that what I understood so clearly was true, not because I was compelled to do so by any external force, but because the great light in my understanding was followed by a strong inclination of my will, and thus I believed all the more freely as I was less indifferent' (Descartes,
1966, p.86). Note that external force does not exclude the internal force that comes as the will acts as it sees the truth.

Now in those matters in which I have no reason to suppose that one choice is better than another, my will will not feel inclined to choose one and I should not in fact choose one. But if I do affirm or deny something without knowledge then I fall into error. 'The natural light shows clearly that apprehension by the understanding should always precede determination of the will' (Descartes, 1966, p.87). Clearly the question then is how the will can be used when it has no inclination, except by an act of will or choice? '[W]hat, then, is the source of my error? This alone, that I do not restrain my will within the same limits as my understanding, which is of narrower scope, but extend it also to things I do not understand' (Descartes, 1966, p.86). How can we restrain it without willing it and what need is there to restrain it if we feel indifferent to the choice? The answer can be found in Caton's article. Caton accepts some of Kenny's argument that Descartes appears to have changed his mind about the relationship between will and reason 'some time . . . between 1628 and 1640' (Caton, 1975, p.88 quoting Kenny). But he goes on to say that while there is nothing similar before the Meditations 'It has not been noticed, however, that the Discourse nevertheless assigns a fundamental methodological role to volition cloaked under the term 'resolution" (Caton, 1975, p.88). This refers to the initial resolution which Descartes makes not to receive anything as true which was not clear and distinct.

'When unguided by method, the mind tends to receive ideas indiscriminately and with prejudice, by receiving ideas that are not clear and distinct' (Caton, 1975, p.89). This can be rounded out by Descartes' presentation in the Principles. Here he reiterates that the choice to accept only the 'certain and indubitable' (Descartes, 1973, p.235) is ours. But the contrary - what of it? Do we choose to be mistaken? No, says
Descartes. Our choices, even in the search for truth, may lead us to error if we 'are
not fully aware of the order in which it should be sought for' (Descartes, 1973, p.236).
So our individual acts of will are dominated by the prior methods and systems and
standards by which we choose. These may lead us to make judgements which are in
error. The whole point of Descartes' account of truth and will is to say that we most
often accept things due to prejudice - by will - prematurely and not by reason. This is
why he believe that we must be determined to choose to use the right method to
discover the truth (Blom, 1978, p.228). This also means that we must know the
correct method so that determining to do the right thing actually makes this possible.
If we fail to choose, or else something which is bound by prejudice, then we will make
mistakes even if we do not choose to so.

But Descartes is not just concerned with cultural and dogmatic prejudices, but also
with those which we obtain in the ordinary course of maturation (although this
obviously includes some cultural matter). Now when we are young and our mind is
'so immersed in the body that it knows nothing distinctly' (Descartes, 1973, p.237) we
learn many prejudicial ways of thinking. And these and other prejudices can prevent
us from seeing eternal truths when we encounter them. '[T]hese common opinions
are opposed to the prejudices of some who are thereby prevented from easily
perceiving them, although they are perfectly manifest to those who are free from
these prejudices' (Descartes, 1973, p.239).

We can use Susan Bordo here to understand some of Descartes' concerns. Bordo
argues that Descartes' concern over dreams is not so much that they may fool us,
but that when we are in a dream, we participate in the dream as if it were real. Our
very ability to judge becomes infected with the logic of the dream. It is the ability of
dreams to be reality for us that is a threat. This is suggestive of the idea that it is a
system of prejudices that is so dangerous to knowledge because it can bring the
things we believe into agreement and so misengage the will. Descartes is not interested in individual pieces of prejudicial judgement, he is rather concerned with the system that produces and legitimates such prejudices. He is not trying to do away with things that are believed, even if they are prejudices in Gadamer's sense, but is rather concerned to establish a system that genuinely founds knowledge: a judicious rather than a prejudicial system; one based on reason and subject to indubitability. For Descartes, a prejudice - a pre-judgment - need not be mistaken simply because it is a prejudice, it is just that we cannot be sure whether we are right or wrong when we make a pre-judgment. After all, knowledge for Descartes is not something that you can stumble across. If you come to embrace truth without sufficient evidence then you have judged poorly (Caton, 1975, p.94n). But a poor judgement is not equivalent to an incorrect judgement. This is what Descartes believes the majority of people do: they believe many correct things, but they have no way to be certain that they are correct in their judgements, apart from a prior commitment to accept them as correct. Truth is, as we have seen, a unity of essence, idea and assent, which is given through correct method, that is, a method that opens us up to seeing the world in its essential character.

When Descartes carries through his process of doubt, he does not examine every possible object of experience. This is not just done for reasons of economy. There is a sound practical idea behind it. Descartes concentrates on classes of objects rather than on individual objects because he is not concerned to show that people had gotten everything wrong for centuries and that he was going to put them right. While he attacks certain folk beliefs, his main aim is not the ordinary tradition, but the institutionalised tradition of the Church and the universities in the form of scholasticism (Descartes, 1983, pp.107-113). Descartes does not want to reject the majority of prejudicial ideas of the ordinary people, rather he wants to give them a foundation so that they will cease to be prejudices. Descartes does not believe that traditions are necessary or essentially false, simply that they cannot be shown to be
true or false. Descartes tries to escape tradition because it cannot provide for knowledge and because it creates a system that gives the appearance of certainty, but which is merely self confirming within its own system. Descartes is really attacking the universe in which tradition can exist without firm foundations. Unlike the enlightenment, Descartes does not want to get rid of the Church, or God, or the world as he knew it, but rather to put these things on a rational basis so that those things which were irrational would fall away, while those that remained would be firmly established. The practical upshot of Descartes' radical position is then reform, not revolution.

We are now in a position to re-examine the criticisms Williams and Caton made against Descartes. To distinguish will and understanding is not, as they would have it, to divide one natural process, but is to talk about the habits of thought and systems of prejudices which we have learnt and which incline our will to accept poorly understood things. But these things will never be expressed clearly and distinctly - they are always open to doubt. However even though the distinction between will and understanding does make sense, both Williams and Caton make the breach between will and understanding too radical.

Williams has not seen what Descartes is doing. Williams sees the will and the understanding as discrete parts of the self that can operate independently of each other, whereas for Descartes they are mediated through the self and always work together. It is from this unity that both correct and incorrect conclusions proceed (but more on this a little later). Williams quotes Descartes as saying 'From a great light in the intellect there follows a great propensity in the will' (Williams, 1978, p.180 quoting Descartes) and argues that here Descartes tries to bring together will and the irresistibility of the natural light of reason, but it is an 'uneasy' combination. But what Williams fails to see is that as one comes to a clear and distinct idea, then the understanding and the will are naturally brought together. One assents because one
sees that it is true. So it is not the understanding which decides the matter alone, but it is the understanding at one with the will. Consider that one may leap off this process if it becomes too frightening. If the understanding is being drawn towards a conclusion that is threatening then the will can decide to derail the reasoning process. Our prior beliefs and the system of beliefs with which it forms a network, or world view, may lead us to will not to look too deeply into something.

The understanding inclines the will as it works towards truth, while the will, through a prior choice (or lack of choice – simply accepting unconsciously the methods you were taught) may give the understanding a set of criteria by which it decides what is true. Both the will and understanding are part of the self, a unity with interests and problems and a history, all of which may incline us to think it better to accept something prior to complete justification, if we think it will serve our purposes. Self interest is a rational activity and not just one of the will. Various prejudged elements can then be at work on both the will and the understanding, and we should not try to separate them too fully. The will is not a faculty stuck out on its own. The will is intimately linked to the understanding and both are part of the single, self-transparent cogito, as well as the more confused, but more common everyday self. Both the understanding and the will are part of the self and so are both subject to, and expressions of, the self. I can be said to use the will, not because the will is subject to the will, but because the entire self, whose will it is, should be coming to judgments in a certain way. This 'should' comes from the way God has intended things, and the way that he has made us, in order for us to make such judgments. Choosing to use our will in a particular way is the problem, but only if abstracted away from the self and the understanding. Our understanding is not a rogue element, but comes to its decisions based on the entire judging experience, so that we can learn from our errors and avoid them in the future. Descartes' method helps us to use our will correctly. The will is subject to what is learnt and so there are criteria for judging the
will, which the will may apply, and hence also a way that the will may be said to be used by the mind.

e) Conclusion.

So we have seen that if Descartes is treated as an enlightenment thinker his arguments simply do not work. We have also seen the value of anti-enlightenment thought in clarifying Descartes' position, not by getting Descartes right, but in attacking what the enlightenment and modernity take him to be.

Many enlightenment figures looked forward to the growth of scientific knowledge which they felt would bit by bit replace the old superstititious or dogmatic beliefs of the past. This 'new world' they wished to build was one based on reason. Reason was usually understood as, or at least best represented by, science and was dedicated to human happiness. But Descartes wants to start again so that he can rebuild the world. It is the system of prejudices which is the problem, not the individual beliefs. Individual beliefs may be wrong and these will be eliminated, but for most enlightened thinkers a prejudice, as Voltaire maintained, was 'irrational opinion' (1971, p.343). Now some moral beliefs are both prejudices and 'universal and necessary'. They are necessary in order to teach children morals. But they are valuable because 'they are those ratified by the judgement when one is able to reason' (Ibid.). But if some opinion has not been arrived at by reason or can be confirmed by reason, then it will be overtaken by scientific examination; not by 'inventing principles' but by 'the compass of mathematics or the torch of experience and physics' (Andrews, 1978, p.69 quoting Voltaire). Without these tools 'it is certain that we cannot take a single step forward' (Ibid.). So while Descartes felt that things would remain much the same
in a rational universe, the enlightenment thought that given time almost everything would change.

Between Descartes and the enlightenment we are left with a position which is either too conservative in Descartes or too radical in the enlightenment. Descartes' conservatism will lead to stagnation in Cartesian philosophy and science, while enlightenment radicality will lead to scientism in some and, as a reaction against it, to irrationalism in others. Descartes' aim is to make science possible in a rational universe, and to make our understanding of God rational for a scientific universe. If we recall Descartes' metaphor of the nature of philosophical activity as building on firm foundations and then remember the metaphor of the nature of the rational universe as a tree, we can see that while philosophy demands that we tear down what was there beforehand and rebuild it, what is there is living and real and so cannot be torn down without actually destroying the universe. We cannot dispose of a regularity in nature because we do not like it, but we may examine it and discover why it happens and dispose of less adequate explanations of it. Descartes would say that those who dispose of God do so simply because they do not like or understand Him. God is there and cannot be disposed of. If reason is to function it must function within God's universe. Any movement of reason that moves against God is in fact irrational, for reason is only reason given God's existence. Descartes is then certainly not an enlightenment thinker although he makes the enlightenment possible.

But how does this help us to answer the question that was posed at the beginning of the chapter: why does modernity choose a form of autonomy that is dependent on
nature and the community of reason? One reason that this is so difficult to understand is that this question places its priority in the wrong place. Modernity does not choose a form of autonomy, rather the choice of autonomy helps to define modernity. The next chapter will try to explain, at least in part, why this decision was made. For now we must consider what the results of this choice are in modernity. We have already seen that the enlightenment and modernity do not want the complexity of a system which would recognise the essential difference between the understanding and the will, and yet say that in the way that they actually exist within the cogito and the everyday self, they cannot be clearly distinguished. The enlightenment and the kind of modernity that grows out of it wants the world to be like the metaphor of the building: each part clearly defined and in definite mathematical relationship with every other part. It does not like the tree analogy, which pushes essences into each other as they live together in a rational organic whole. What we have learned of Descartes' actual position on truth and error may help us to see why this might be. This modern enlightenment position sounds very much like that of someone who has resolved to makes judgements based on a set of criteria which will reinforce the view of the world based on these criteria.

In the next chapter we will try to see the role that Descartes' own methods played in ensuring that he would be misunderstood, and that modernity would demand that the world of essences, even if understood nominalistically, must be equivalent to the world as it exists. For example, if the essence of the mind is spirit and that of body is extension, then, according to the dominant stream of modernity, the closest they can get to each other is to be next to each other, they cannot be intermingled. Likewise, the will and understanding must sit next to each other, if they are essentially distinct, they are not meant to merge. This is why Caton and Williams have such trouble understanding Descartes. They begin with the modern assumption that since the world is all there is, then if it is a rational world as Descartes supposes, then a
rationally discovered distinction in essences, must be reflected in the world along the lines of this distinction.

Descartes stands at the head of a tradition which is opposed to most traditions. He is not simply at the head of the Cartesian tradition but of much of the anti-Cartesian tradition as well. This is partly because the Cartesian misinterpreted Descartes, but more importantly because those who rejected the Cartesians did so for largely the same reasons Descartes would have. Descartes is one of the important sources of tension throughout the enlightenment and modernity. The choice to follow Descartes, whether we do so deliberately or simply by accepting a rational universe and identifying ourselves with the rational approach involves some very complex movements which the following chapter, and those which follow, will explore.
Chapter Six. How To Become god Without Really Trying.

Up until now, we have not spent too much time looking at postmodern and post-structuralist perspectives on Descartes. This was because it was important to try to have some idea of what Descartes was saying and what modernity took him to be saying. Postmodern readings of Descartes tend to accept the modern interpretation of him. They do this as part of the critique of modernity. Descartes is according to them guilty of the same things that modernity is guilty of. The advantage in this for us is that as the interpretative structure used to understand Descartes is subjected to criticism, we are able to get underneath Descartes and modernity in a way that is not otherwise possible. In their attack upon modernity and the enlightenment they allow us to see the ways in which Descartes' thought is different from, and in fact, constitutes an attack on different aspects of the enlightenment.

The first section of this chapter deals with Lacan. By studying Lacan here we can see the similarity between him and Descartes. This can give us insights into the similarities between the Lacanians and the Cartesians, and their problematic relationships with their masters. But in addition Lacan offers us an insight into the reasons why both some of his and Descartes' followers take the path which they do. This is a necessary step towards answering the question about the choice of modernity which will spin Descartes' world into modernity. In sum, the point we gain from Lacan is that our sense of completeness and of identity is haunted by incompleteness, an incompleteness which leads us to seek for a completion when none exists. This desire distorts our world and Lacan and Descartes help to make us aware of this as they offer us an identity that is powerful but self-consciously incomplete.
After we have seen this we can move to Derrida's claim that at the centre of a philosophy that comes out of Descartes is madness, the madness which makes every philosophical adventure very dangerous. When we set out on the philosophical path which Descartes offers, we step into the unknown.

From the first two sections we have learnt that Descartes offers us an identity which is tempting for those searching for completion, and that philosophers especially after Descartes are embarking on a potentially dangerous journey. The third section on Deleuze and Guattari adds to this picture the idea that Descartes operates through the history of philosophy as well as in his own philosophy as a philosophical character. This binds Descartes to his philosophy as a part of his philosophy. This then binds his readers to the way that Descartes is presented and not just to his doctrines.

Finally we will look at an argument of Nancy's which tries to demonstrate that through the method of doubt, Descartes is putting himself in the place of God for those who read him. Alongside the arguments of Deleuze and Guattari and Lacan we will see that postmodern figures become caught up in various ways in Descartes philosophy. This is especially clear in the case of Nancy, who is so thorough-going in his assimilation of modernity's interpretation of Descartes that his demonstration of what this interpretation means, reveals a great deal more about modernity than it does about Descartes. But what we can mention of it here is that in view of what we have learned from the earlier sections of this essay, Descartes offers himself vicariously as the path finder for his followers and so he comes to stand for the security of all who inhabit the rational scientific universe, as well as those who define themselves negatively against this universe. But this gets even more dramatic as we can see that Nancy's arguments ultimately fail because he misunderstands Descartes. However since modernity also misunderstands Descartes, Descartes does in a sense
become god for those who would live in his universe without the security of the rejected God.

a) Lacan.

In looking at thinkers who will reveal what is beneath modernity and its interpretation of modernity, it would seem that the more powerful the critic the more they will reveal for us. An especially useful post-enlightenment thinker would be one who is taken to be an enemy of Descartes: one who attacked Descartes' most basic assumptions. In view of the behavioural question posed in the last few chapters on why modernity preferred a form of autonomy that involves subjection to nature and the community of reason, a theoretical psychoanalyst would be even better. A psychoanalyst who deals particularly with the relation between self and other would be ideal. Jacques Lacan would seem to be the obvious choice. Jacques Lacan is considered to be carrying out a fundamental attack on Descartes' position. This attack is then also seen to be an attack on the whole of the modern western tradition which is seen to begin in Descartes. It should be understood however that Lacan is not concerned to bring down the whole edifice of modern philosophy, but to attack certain aspects of it which revolve around a simple unitary self or the acquisition of absolute knowledge. It will be argued in this section that the distance between Lacan and Descartes is not as great as is usually presented. If then Descartes has been misrepresented in relation to Lacan, Lacan has also been misunderstood in relation to Descartes. In fact we may see that Lacan may be considered to be a follower of Descartes in his attitude to his theory and his world. Once Lacan is understood in his own terms and not just in an oppositional sense we can find unusual value for our discussion in his idea of 'misrecognition'. Modernity's misrecognition of Descartes leads to a misrecognition of itself, and hence a misrecognition of Lacan. Descartes is to some extent responsible for the misrecognition of his thought: a misrecognition that
confuses the natural light of reason and emotion, the individual and the group, and the transcendent with the corporeal.

Lacan stands in the tradition of Rousseau, Hegel, Marx and Freud, among others, who historicise the subject and show how it is transformed through social and biological forces. This will not pretend to be a comprehensive exposition of Lacan, but will concentrate on a small part of his best known piece, 'The Mirror Stage as Formative of the Function of the I' (Lacan, 1977). Lacan begins this 1949 paper by saying that the Mirror phase leads to the rejection of any philosophy which springs from the Cogito. Roudinesco points out that this attack is aimed more at the Anna-Freudians than at Descartes (1997, p.195). However, the fact that he uses one of Descartes' central terms in order to ridicule the ego-psychologists by association, and that he specifically attacks Sartre's transcendental philosophy at the end of the paper, should lead us to think that the net Lacan is casting is wide enough to catch Descartes as well.

The Mirror stage is that period in an infant's life from between 6 and 18 months, when he notices his image in the mirror and, with great joy, manipulates the image by moving his body. A chimp at a similar age will be far more physically capable, but find their own image much less interesting and find no joy in manipulating it. Why should this be? For Lacan, it is because the infant human is taking on the mirror image as the reality it wishes to be, and therefore, through this process, laying the groundwork for who they will become: single, unified and solid. Now this process requires that the infant carry out the, 'assumption of his specular image' (Lacan, 1977, p.2) and this requires a coordination between self and image, a recognition that the image is his. Unlike in chimps, the image rebounds,

in a series of gestures in which he experiences in play the relation between the movements assumed in the image and the reflected environment, and between this virtual complex and the reality it reduplicates - the child's own

Now this process is meant to show the primordial precipitation of the 'I' 'before it is objectified in the dialectic of identification with the other, and before language restores to it, in the universal, its function as subject' (Lacan, 1977, p.2). But in order to assume this image one must already be able to recognise one's own movements in the mirror image as one's own. But Lacan holds that we take on the mirror image as our own because we lack a stable view of the self. How then can we recognise the coordination between our own body and the movements in the mirror? Lacan deals with this problem by saying that we do it via a Gestalt, one 'whose pregnancy should be regarded as bound up with the species' (Lacan, 1977, p.2). In other words, it is a biological function, just as a pigeon or a locust reacts with biological changes to particular images (Lacan, 1977, p.3). Human beings need to go through this phase because we are born prematurely (Lacan, 1977, p.4). This prematurity sets up the biological conditions for the Gestalt. This however makes the Gestalt a mysterious event. Since it is based on prematurity it cannot be a genetic occurrence as it is for the pigeon or the locust. It occurs because of the 'insufficiency' due to our prematurity, and is an 'anticipation' of totality (Lacan, 1977, p.4). This implies that this totality is our birth right. It is then the totality with which we were genetically programmed if we had been born at the right time. The Gestalt allows us to have an image of this totality, if not the real thing.

The standard way of interpreting Lacan in the Mirror phase, is to say that,

the mirror stage is the advent of coenaesthetic subjectivity preceded by the feeling that one's own body is in pieces. The reflection of the body is then, salutary in that it is unitary and localised in time and space. But the mirror stage is also the stage of alienating narcissistic identification (primary identification); the subject is his own double more than he is himself. The whole drama of the dual relationship is played our here: consciousness collapses into its double without keeping its distance from it (Lemaire, 1981, p.81).
This view, that the body is experienced as being fragmented before the mirror stage and therefore the infant rushes to misrecognise himself\textsuperscript{28}, is the view accepted by most commentators (Grosz, 1990, p.34. Benvenuto & Kennedy, 1986, p.57. Boothby, 1991, pp.23-24). An alternate view is given by Bowie (1991, pp.226-27), and Gallop (1988, p.80). Both Bowie and Gallop argue that the memory of the fragmented body is in fact a product of the mirror phase, and is not the way that the body is experienced prior to it. Jane Gallop says that 'actually, that violently unorganized image only comes after the mirror stage so as to represent what came before. What appears to precede the mirror stage is simply a projection of a reflection. There is nothing on the other side of the Mirror' (1988, p.80). Bowie puts it thus,

Lacan insists that what is involved here is a Janus-faced phantasy structure rather than a simple set of memories associated with real bodily parts. Whether the subject looks forwards to the ego or backwards to the corps morcele he is contemplating a construction - the same one in alternative states (1991, p.26).

I accept the interpretation given by Bowie and Gallop for two reasons. The first is textual. Lacan says that,

The mirror stage is a drama whose internal thrust is precipitated from insufficiency to anticipation - and which manufactures for the subject, caught up in the line of spatial identification, the succession of phantasies that extends from a fragmented body-image to a form of its totality that I shall call orthopaedic - and, lastly, to the assumption of the armour of an alienating identity (1977, p.4).

So the fragmented body is a phantasy manufactured through the mirror stage just as much as the totality we imagine we have is. Now compare this quote with the passages cited in support of the usual interpretation. Boothby gives two quotes. The first, from Lacan’s Les Complexes Familiaux, states that,

\textsuperscript{28}By misrecognition is meant the way the child takes himself to be what he is not; in this case, his reflection. He believes himself to have the same qualities as his image. Misrecognition is the taking of oneself to be what it is not in such a way that the self is constituted by this misrecognition. We become who we take ourselves to be.
The study of the behaviour of the newborn infant permits us to affirm that exterio-, proprio-, and interoceptive sensations are not yet, after the twelfth month, sufficiently coordinated in order either to achieve the recognition of the infant's body nor, correlatively, the notion of what is exterior to it (Boothby, 1991, p.24, quoting Lacan).

This does not amount to the *corps morcele*. Since the infant cannot recognise their own body, they cannot experience it in bits and pieces. This is an act that can only occur after the body has achieved some form of unity, that is after the mirror phase.

It is the same with the second quote Boothby gives, which is from Lacan's Seminar of 1953-54.

In animals, knowledge is coaptation, an imaginary coaptation . . . In man, there is nothing of the kind. The anarchy of his elementary impulses is demonstrated by analytic experience. His partial behaviour patterns, his relation to the object - to the libidinal object - is subject to all sorts of risks. *Synthesis miscarries* (1991, p.24, quoting Lacan, italics mine).

This refers to the adult analytic subject and not to the infant. How can synthesis miscarry before there has been a synthesis? It seems that this interpretation is given its direction more by the work of Wallon, on whom Lacan draws, than by the work of Lacan himself. Boothby goes on to quote Wallon who says that 'the infant is devoid of internal cohesion' (1991, p.24, quoting Wallon). Here we have both a sense of body in his use of 'internal' and the sense of fragmentation of this body by the lack of cohesion.

The previous quote from Lacan can be better explained by Gallop than by Boothby. Gallop says that the mirror phase projects us into history and hence gives us both a past and a future. It gives us an anticipation of our own coming to perfection, to be ourselves, and hence sets us against a natural maturation, which may proceed without our permission (Gallop, 1988, pp.82-83). 'Any "natural maturation," simply proves that the self was not mature before, and since the self was founded upon an
assumption of maturity, the discovery that the maturity assumed is the discovery that the self is built on hollow ground' (Gallop, 1988, p.83). By maturity, in this context, is intended the idea of completion and power, the solidity and power that a child sees in its parent. The synthesis that the subject assumes is unrealistic and at odds with biological realities. This clash generates a constant anxiety as we mature and change and hope, since all improvements, or known needs for improvement, or failures to improve, put a strain on the foundations of our ego: the illusion of completion. Ours is not an adaptive knowledge which centres on events and problems, but is rather a knowledge first about ourselves and in this context, it relates to all that threatens to disrupt or strengthen it. History is illusory. It is what we live in, in order to stop the real of our biology and of the other from disrupting our illusions. The constructed nature both of our egos and of the fragmented body puts us into history, and this history makes relationships to libidinal objects risky since they may not conform to the story we tell ourselves about ourselves or them. Objectivity is an illusion that masks our need to know as if we did not care whether we knew or not. So our troubles do not spring from a real chaos we are fleeing in a false unity, as the standard interpretation would hold, rather, they come from a false chaos which we are afraid of in every moment of our false unity. The experience of the one always implies the other. This interpretation gives us a much better understanding of Lacan’s idea of paranoiac knowledge than the usual interpretation does.

On the normal interpretation of the mirror stage, critics have had to account for the nature of paranoiac knowledge based on the idea that humans understand themselves through their objects. For instance, Grosz argues that the ego is split between 'a body it claims as its own, and an other it strives to be' (1990, p.42), and that this produces paranoiac knowledge. The evidence for paranoiac knowledge that Benvenuto and Kennedy point to is the use Lacan makes of transitivism in his discussion of the mirror stage. When a young child sees another hurt it will
sometimes react as if it itself had been hurt (1986, p.45). While Robyn Ferrell says that the root of the problem is that 'self and other, while as terms can be distinguished as an oppositional pair and even described as a relation, are not strictly separable' (Ferrell, 1996, p.69). Now none of these writers are wrong to point to the importance of the confusion between objects and self in paranoiac knowledge, but this is not the whole story.

A richer account provides for a richer interpretation of Lacan. Take Robert Samuels' account of Lacan's theory of knowledge. Samuels argues that 'the ego's image of the body is equivalent to the subject's body of knowledge, because the unity of the self is dependent on the establishment of unities in the outside world and vice versa' (Samuels, 1993, p.63). What Samuels means here is that the ego's image of its body is formed in the image of its other objects and visa versa. The solidity of the one is bound up with the solidity of the other. If one is lost, so is the other. This is the function of the imaginary. It is the process which strives to make all things conform. It is the effort of the moi to make the world in its own image, to reduce the otherness of the other. It is also however the possibility of being possessed by the other. So the unity of the self, the body and the world are bound together by the imaginary realm opened up by the misrecognition of the mirror phase. Samuels here places the emphasis on the permanence and stability of the self and its objects. This leads him to use the following quote from Lacan, 'this formal stagnation is akin to the most general structure of human knowledge: that which constitutes the ego and its objects with attributes of permanence, identity and substantiality, in short, with entities or 'things' (1993, p.63, quoting Lacan). Hence knowledge is narcissistic, having the unity of the self based on the unity of its objects.

Now Samuels is committed to the standard reading of Lacan and so he fails to fully take into account the context of what Lacan is saying. The formal stagnation that Lacan is referring to is that experienced by a sufferer of clinical paranoia. Lacan
talks of how Janet pointed to isolated moments of persecution in ordinary social life, which Lacan argues, in a paranoid person, become permanently present. These feelings of persecution become stagnated, 'similar in their strangeness to the faces of actors when a film is suddenly stopped in mid-action' (Lacan, 1977, p.17). In this context it is clear that Lacan means the kind of knowledge that is being modelled on paranoia must also include this strange, stagnant moment: the continual fear in all we do, the anxiety Gallop refers to. We can see that which accompanies the permanence of the self and its objects is the fear of incompleteness that permanently accompanies our feeling of unity. Knowledge is not simply paranoiac because we and our objects are bound together, but also because we are haunted, like Lacan's paranoid patients, by the permanent shadow of our disunity in our unity. We are then not only alienated by the imaginary ego (Lacan, 1991, p.247), we also cannot escape the illusory nature of ourselves. This I think is sufficient to show that the Gallop, Bowie interpretation both adds to our understanding of Lacan, and is textually well supported.

So if we do not enter the mirror phase because of our fragmented bodies why do we enter it? For Lacan it is because of our lack of totality brought on by our prematurity. This prematurity cashes itself out in terms of the mirror phase by the dissonance between the image of the body as a whole and the feeling of 'motor incapacity' (Lacan, 1977, p.2) which leads to the assumption of the image of itself – as what it wishes to be – to feel what it sees. The fact is that the total form of the body by which the subject anticipates

in a mirage the maturation of this power is given to him only as Gestalt, that is to say, in an exteriority in which this form is certainly more constituent that constituted, but in which it appears to him – above all in a contrasting size . . . that fixes it and in a symmetry that inverts it, in contrast with the turbulent movements that the subject feels are animating him (ibid.).
So our biological lack leads to a biological assumption of a false totality which reinterprets the insufficiency as chaos, and the totality as itself - as what it should be, and will become. But this is surely quite close to Descartes' position. For Descartes, the *cogitans* is a fact, not a reading of experience. We do not experience ourselves as solid, total or one. Our ego shifts and changes. Lack accompanies us all the time. For Descartes it is method which allows us to discover our unity and the single transcendent vision, but this is only temporary and the amount of knowledge we may gain in a lifetime is limited. We are so deeply embodied that we do not act as if we were merely spirit. The lack, which for Lacan is ours from the beginning due to our biology, is there for Descartes in the form of the presence of the body. The illusion of the fragmented body for Lacan could be seen as the failure of thought to think the body correctly for Descartes. For Descartes, unity must be won, and it is only after death and we are free from the body that we have the final victory. The incorporeal memory deals only with universals and not particulars, and only with the non-spatial and not the material. The pure language of thought after death will not be bound by a series of perceptual and linguistic inaccuracies, but will be free to be united with pure essence, the originating thoughts of God. For Lacan on the other hand, 'All that life is concerned with is seeking repose as much as possible while awaiting death' (Lacan, 1991, p.233). The never ending movement of desire and the signifier is only silenced in death. Death brings freedom from thought, desire and lack. Lacan asks why the planets do not speak. He answers that they have been completely reduced to language. That is they are completely reduced to scientific discourse and so have no room to say anything (1991, pp. 238-240). What mysterious astrological words of cosmic significance can they produce when all is known of them and their movements are completely predictable? But we have speech and so escape
completeness and being completely understood. So for both Descartes and Lacan, to be human is to be embodied and to be embodied is to be incomplete.

So while Descartes and Lacan are certainly not in agreement they are closer to each other than we might have thought. Both agree that there is a lack of totality, and both locate it biologically. Neither see a solution except in death, and both have methods for lessening the problem. Descartes' philosophy does not stand above the body and pronounce it is fully aware of the difficulties which embodiment presents. The ego may in fact be one, but we do not experience it this way. Now Lacan does not contrast our illusion of the oneness of the ego with chaos but with a simple lack. We misrecognise ourselves in the mirror with our own reversed image, we do not take ourselves to be the mirror itself. We are always 'a bit off' in an intellectual, emotional and theological sense; we are not thoroughly other than ourselves. Our knowledge is paranoid, not schizophrenic. In parody of the cogito, Lacan says, 'I think of what I am where I do not think to think' (Lacan, 1977, p.166), and, 'I think where I am not, therefore I am where I do not think' (1977, p.166). The Cartesian elements are still all there, but no longer perfectly aligned.

But what then is Lacan's understanding of what he himself is doing? To understand this we must return to the mirror phase and see what he is not doing. If Lacan were to make the fragmented body a real state of the infant, then he would be drawing on the negation of the present. That is, he would be accepting a paranoid understanding of reality. Hence this negation of what we believe ourselves to be opens up a mythological space that can be explored in analysis. The world of history which we place over against our biology is intimately bound up with myth. The evidence for the fragmented body, as given in analysis, can only be taken as imaginary, for we have no access to the real (that which we encounter which is

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29Romans 3:23, 'all have sinned (hamartano: missed the mark) and fall short of the glory of God' (Grayson, 1969, p.229 quoting St. Paul), parentheses Grayson's.
unconditioned by language and culture and not containable by the imaginary). The symbolic\textsuperscript{30}, and imaginary are as far as we may go. It is because of this that the real is so frightening. We cannot control or even face it, we merely find its symbolic and imaginary effects in our lives. We may feel that something is wrong but not be able to say what. The non-analytic move to reconstruct what happens before the mirror phase then becomes one of using naive language and logic to understand what makes such language and logic possible and desirable. In order to take a psychoanalytic stance, Lacan must, on the one hand, distance himself from this and be able to speak about both the\textit{corps morcele} and the imaginary as objects for his study, while on the other he must acknowledge them as objects of psychoanalytic desire. The power of Lacan's psychoanalytic manoeuvres comes from his ability to situate psychoanalytic language and theory within the string of signifiers at the same time as he is able to lay this string out before us to study it as if we were not a part of this string.

In order to understand how he does this we need to know his general view of the status of discourses. For Lacan, all knowledges forget the creative leaps that are constitutive of their development. This forgetting produces the illusion of a steady and unidirected movement of reason. But this is an error. Intuitive moments of the imaginary are necessary for any discipline to have a history (Lacan, 1991, p.19). Psycho-analysis is also such a knowledge, but it is one that cannot forget this fact about knowledge since its actions 'precedes the constitution of knowledge' (Lacan, 1991, p.19). This makes a knowledge much more contingent and less controllable by a definite and repeatable method. Psycho-analysis studies those moments where

\textsuperscript{30}The symbolic is the order of language and culture. This is the order that we enter before we are even born by being a presence in the world as an expectation, a hope, a name, and a place in history. We learn language and its rules. We also learn our culture’s rules and prohibitions. The symbolic penetrates objects and makes them its own. A tree is always understood in terms of language and when we try to get to what ‘tree’ signifies apart from language, we find that we cannot, a tree is always already a fully organised object. It is this characteristic of language that leads to the overabundance of language. Every signifier may be exchanged for another. So there is no stability in signification, nor finality in definition. Knowledge and culture promise finality, but produce an irreducible flux.
knowledge and knowledges come into being or are changed dramatically: those moments of formation and rupture in the symbolic realm. So in a very similar way to Descartes, Lacan finds a method which both acknowledges the limitations it is working with (for Descartes the body with its limitations and errors, and for Lacan the necessary paranoid and incomplete nature of any knowledge) but which still allows for the attainment of truth understood within these limits.

Bowie gives two senses in which Lacan accepts the idea of truth. The first is in terms of the state that psycho-analysis reveals that we are in, being stuck in the symbolic: 'it tells us where our losses come from and suggests measures for limiting them' (Bowie, 1991, p.120). The second, 'if we pay due attention to the overflowingness of his writing and of its tireless enumerative pulse, is a matter of actualizing the possible forms of the world. An ecstatic sense of plenitude is being sought' (Bowie, 1991, p.116). This truth is ironic, comical, and a way forward for Lacan himself: a way toward 'his own truth as fullness' (Bowie, 1991, p.118). Truth in this sense is 'an answer to the symbolic: in its copiousness and its comedy it strives to repair the damage that the Symbolic has caused; it is speech exultant' (Bowie, 1991, p.120). It is then not just Descartes who seeks to heal the wounds caused by the prejudices and dogmas of handed down culture. To do this Descartes sought the discovery of a multitude of truths that were put there by God for us to find, while Lacan sought to create truths that would break the bonds of the way that the law of the Father has set things up in the symbolic. We cannot escape the symbolic, but we can try to make it our own.

What then were the traditional interpreters of Lacan doing? We can learn the answer to this from an unlikely source: Rousseau. The reason that he can help us with our present problem is that in both the case of the Lacanians and of Rousseau the issue turns out to revolve around the nature/culture distinction. The interpreters of Lacan we are speaking of, negate the present, that is, the appearance of totality, and
produce the fragmented body as the real origin of the self. This is Rousseau's tactic in *The Second Discourse on Inequality* (1961). When searching for the origins of inequality, he negates the present world of community, society, reason, language, marriage, family, and institutions and produces a world inhabited by isolated individuals who wander the countryside in search of food, shelter and sex. This enables him to make a radical break between nature and culture. This break is not along the traditional lines of man made and non-man made; it is instead one that makes humans themselves subject to transformation by culture. Humans become historical subjects. His discovery of the primitive state of mankind by negation of the present, allows him to break out of the system which naturalises its institutions and transformations.

Once the negation has been carried out, Rousseau's task is to trace how we have moved from the state of radical individuality to that of the complex social world in which he lived. Rousseau must trace this path using the only tools he has. The evidence from other primitive cultures he is aware of, the use of logic, and his narrative imagination. This amounts to: the reconstruction of the past in terms of the present; in terms of the personal and; in terms of the universal. This is unfortunate for Rousseau since he criticises the attempts of others to explain what man is by trying to define man in terms of natural law. He is critical of them because we do not know either what is natural to man nor can we be clear about what such law would amount to (Rousseau, 1961, pp.156-157). So while Rousseau says that he does not think that he has solved the problem, none the less 'I have here entered upon certain arguments, and risked some conjectures, less in the hope of solving the difficulty than with a view to throwing light upon it, and reducing the question to its proper form' (Rousseau, 1961, p.155). His aim is to cut through all of the complex speculation on the nature of man, and to get to the nub of the problem. There is no point in beginning with man as a social being because it is too late to understand natural man
by then. The light which he hopes to throw is on man as he is purely without culture. He is after purity - pure humanity.

For Levi-Strauss, Rousseau breaks out of the confines of the *cogito* by incorporating other kinds of humanity in his vision of humanity and himself. 'Descartes believes that he proceeds directly from a man's interiority to the exteriority of the world, without seeing that societies, civilizations - in other words, worlds of men - place themselves between these two extremes' (Levi-Strauss, 1978, p.36). Because Rousseau thinks of himself as an historical subject, the 'I' of the *cogito* is undone. He examines himself daily for changes in himself, and thus discovers not an immutable I, but rather a 'he' with whom he may conduct dialogues and inspect like an object (Levi-Strauss, 1978, pp.36-37). But Rousseau is more Cartesian than Levi-Strauss thinks. In his quest for the purity of natural man as a way to expose the artificiality of present day life, he is searching for that within himself which may be rescued from the forces of culture. This is what Lacan argues that we do as we flee from our historicality into completion. It is also that to which some of Lacan's followers cling to when they naturalise the fragmented body, and so gain security in their identity as Lacanians or as those who have risen above culture by understanding the core and cause of their unavoidable historicality.

We can see the results of Rousseau's position in the movement which he helped to inspire. Gadamer (1982, pp.241-245) analyses the development of history as a science in the Nineteenth Century and traces it back to the romantic rejection of the enlightenment dependence on reason. The romantic movement emphasised the ancient, mythical, poetic, natural, irrational etc. as an alternative to the narrowness of reason. This leads to the examination of history, tradition, folk culture, and other cultures. However, this search for an alternative to reason was still based on the enlightenment distinction between myth and reason. Hence the romantic attempt to
escape the rule of reason led to an expansion of Western culture and analyses all
over the world and into the realms of myth and religion. Romanticism thus

transformed the intuitive revival into historical knowledge proper . . . The
historical science of the nineteenth century is its proudest fruit and sees
itself precisely as the fulfilment of the enlightenment, as the last step in
the liberation of the mind from the trammels of dogma, the steps as an
equal besides the knowledge of nature archive [sic] by modern science
(Gadamer, 1982, p.244).

Now Rousseau's and Lacan's interpreters also maintain a basic distinction that
comes from the discourses they are attacking. They both retain the basic distinction
between nature and culture, and so in their attack upon the cogito as illusory and
merely cultural they reproduce the natural.

The cogito resists the claim that all is culture, and hence that the concept 'nature' is
itself a cultural product. In order to expel the cogito, the traditional interpreters of
Lacan have negated the present world to arrive at the fragmented body as the true
starting point of human life and culture. They want us to be thoroughly cultural. By
showing that we start with the corps morcele they can show that the cogito is simply
a cultural product. But what they are in fact doing is to make the fragmented self
natural. In the search for a purely constructed cultural world they have in fact
reinstalled the natural at a far more fundamental level. The result of this, from a
Lacanian point of view, is that these interpreters of Lacan have retold history in terms
of the natural, the subjective and the universal, and are thus creators of an
unconscious paranoiac history in which we grow steadily and naturally away from
nature. This then gives them power over the force that really haunts them, the threat
of the cogito. As Lacanians they understand that history is an illusion that hides our
incompleteness, so they are not haunted by their incompleteness, they are haunted
by the sense of completeness that being Lacanian, and hence knowing the state of
history, culture, and nature, produces. For them, this pseudo-Cartesian subject is
their biggest fear and greatest threat, so it must be made impossible by naturalising
the fragmented body. The rule of the cultural is anchored in the natural, and the end of the cogito is guaranteed by the actual state of humanity. To be the master of knowledge because one acknowledges another as master is a fundamentally Cartesian problem (as we will shortly see) and the simple denial of either mastery or servitude is not enough to escape the cogito as it haunts modernity, even in its most thorough attacks on the subject.

It seems then that Lacan, who resists totalising interpretations, the naturalisation of the fragmented body, and the reduction of all to the cultural, is showing tendencies strongly associated with Descartes. The Lacanians we are dealing with here, however, seem they are more like Cartesians who understood Descartes in terms of the need for essence to mirror existence than to be like Lacan. In Lacan's moves against the cogito of modernity and its world, he has in fact come close to rediscovering the cogito of Descartes and his universe. Descartes' and Lacan's attitudes are certainly similar in their desire to refuse to allow the universe to be reduced to something which can be wholly represented by the concepts and categories of theory. For both, existence outstrips essence or psychoanalytic category. Not that they believe their theories are incorrect, simply that they are limited, as is our understanding of the world.

So we have seen that there can be anti-enlightenment thinkers who are attitudinal followers of Descartes, and Cartesians who reject Descartes' key methodological ideas. None the less, Lacan does differ considerably from Descartes. What is the central difference between Lacan and Descartes? It is surely Lacan's attitude to the idea of a unitary continuous cogito. This idea was made a far easier target by modernity, which took the cogito simply to be the self. But what caused this running of the two together? We have a little way to go before we can answer this question. The answer when we find it will also shed light on the issue of autonomy which we have been following for much of this thesis. We will need to bear in mind what we
have learnt about Lacan's idea of misrecognition as it will play a vital part in answering these questions.

b) Derrida

But while we may see in Lacan the closeness that a critic of modernity can come to one of its precursors, we find in Derrida one of the reasons why: Descartes captures in a particularly strong way the potentially frightening nature of philosophy. If people seek the cogito for security, they may find that the journey to the cogito is almost as frightening as being faced with our irreducible historicality.

In his lecture 'Cogito and the History of Madness', Derrida discusses Foucault's then recent book, *Madness and Civilization*. Derrida's focus is on a three page section (omitted from the English edition) from the original French edition of *Folie et deraison: Histoire se la folie a l'age classique*, which runs to 673 pages (Derrida, 1978, p.32). This is a section which looks at Descartes' use of madness in the *Meditations* as a way to bring the world to doubtfulness. Foucault argues that in Descartes' treatment of madness we see it being entrapped by reason. Reason has defined, surrounded and objectified madness so that it is controlled and excluded from society. Earlier in the book, Foucault had said that in the "Madhouse" 'every empty head [is], fixed and classified according to the true reason of men . . . Here each form of madness finds its proper place, its distinguishing mark and its tutelary divinity' (Foucault, 1987, p.35). With the rise of modern reason the insane are increasingly and systematically excluded and put into their proper place. By the late eighteenth century this was becoming the asylum.

Descartes' treatment of madness is seen to be an important part in this process. For Foucault: 'In the economy of doubt there is a fundamental imbalance between madness, on the one hand, and error, on the other' so that 'Descartes does not avoid
the peril of madness in the same way he circumvents the eventuality of dream and error' (Derrida, 1978, p.46 quoting Foucault). While Descartes deals with the problems of dreams and error he simply lays madness aside dismissively.

'[M]adness is inadmissible for the doubting subject' (Derrida, 1978, p.47 quoting Foucault) and so must be excluded from the entire discourse. Now without going into too much detail, Derrida proceeds to argue that this interpretation is mistaken. What Descartes is doing says Derrida, is to put madness out of play, not because it is too dangerous but because it is too doubted, and; 2. the non-philosophical reader will not be prepared to follow Descartes in supposing that they can be mistaken about things that seem so clearly true as that I have hands and feet. So in place of madness Descartes inserts dreams which have the double advantage of being a more acceptable instance of illusion, and that this illusion is total.

Derrida's lecture begins with a short meditation on how difficult it is for the disciple to come to their own opinions and come to disagree with the master. 'The disciple must break the glass, or better the mirror, the reflection, his infinite speculation on the master. And start to speak' (Derrida, 1978, p.32). This may be taken not just to be speaking of Derrida (disciple) and Foucault (master) but of Descartes and all who come after him. By breaking with Foucault, Derrida is also breaking with Descartes. Yet Foucault was also breaking with Descartes. The end of our infinite speculations on Descartes still invoke Descartes. We are in the mirror that we break in an attempt to become more than a reflection of the master, the master remains always more real than those who feel compelled to break away. Indeed, it is a part of Descartes' image in us that we take on that which compels us to think for ourselves. As philosophical subjects we must think for ourselves. We start to speak for ourselves in the echoes of Descartes' voice.
As Derrida criticises Foucault he still wants to try to recover the master's work which he admires and so works his interpretation of Descartes into Foucault's general argument about the internment of madness. In order to do this Derrida reads the hyperbolic moment of doubt which invokes the evil genius who will sweep away everything doubtable, as a moment of madness. For now 'everything that was previously set aside as insanity is now welcomed into the most essential interiority of thought' (Derrida, 1978, p.53). Derrida now takes up one of the 'fundamental motif[s]' of Foucault's book, 'madness is the absence of a work' (Derrida, 1987, p.54 quoting Foucault). Such work is present in meaning, in sense. 'By its essence, the sentence is normal. It carries normality within it, that is, sense, in every sense of the word - Descartes's in particular' (Derrida, 1978, p.54). If sense is a work, and madness has no work, then madness is silent. Then silence has no work, yet it is what language must work from and to. It exists in the holes in both language and in sense.

Then 'any philosopher or speaking subject (and the philosopher is but the speaking subject par excellence) who must evoke madness from the interior of thought . . . can do so only in the realm of the possible and in the language of fiction or the fiction of language' (Derrida, 1978, p.54). So the announcement of reason as other than madness and the mind as free of madness in its philosophical purity, creates madness as the thing which is silent and hence make reason both pure and the equivalent of all that is spoken. In order to show how this formulation does not tally with Foucault's interpretation Derrida then argues that Descartes allows madness to reign through the evil genius so that he can show that the cogito is valid if you are mad. 'The certainty thus attained need not be sheltered from an imprisoned madness, for it is attained and ascertained within madness itself' (Derrida, 1978, p.55). The cogito thus stands as the 'zero point' (Derrida, 1978, p.56) around which all events, 'meaning[s] and nonmeaning[s] come together in their common origin' (Derrida, 1978, p.56). 'Invulnerable to all determined opposition between reason and unreason, it is the point starting from which the history of the determined forms of this
opposition . . . can appear as such and be stated' (Derrida, 1978, p.56). It thus exceeds any totality built upon it since it does not matter whether you understand it or not, for

Even if I do not in fact grasp the totality, if I neither understand nor embrace it, I still formulate the project of doing so, and this project is meaningful in such a way that it can be defined only in relation to a precomprehension of the infinite and undetermined totality. This is why, by virtue of this margin of the possible, the principled, and the meaningful, which exceeds all that is real, factual, and existent, this project is mad, and acknowledges madness as its liberty and its very possibility (Derrida, 1978, p.56).

Now the moment of the cogito is just a moment and this moment is found within the madness of the demonic hyperbole and may give itself either to madness or to reason (Derrida, 1978, p.58). It is here that Derrida discovers the moment which Foucault had mistakenly located earlier in the Meditations. It is then that madness must be controlled and excluded.

Since silence is always what is being spoken into, the space for articulation and reason, then it is this space 'that open[s] up life as historicity in general' (Derrida, 1978, p.54). It is not reason into which we reason - an eternal reason waiting to be discovered, but the momentary and historical movement beyond what the past has already inscribed. We reason into the silence which, by reason's own standards as established by Descartes is madness. The cogito exists in the moment of its realisation, it is thus also not eternal, but an historical moment, but not simply conditioned by a pre-existing totality.

Philosophy is a continual movement between the hyperbole which takes it beyond what has been and the structure which will be after the hyperbole has solidified. Thus 'From its very first breath, speech, confined to this temporal rhythm of crisis and awakening, is able to open the space for discourse only by imprisoning madness' (Derrida, 1978, pp.60-61). Now as we move onto the cogito we do so through the
'demonic hyperbole'. Thought first frightens and then 'reassures itself against being annihilated or wrecked in madness or in death' (Derrida, 1978, p.61). However through this moment in which it 'tranquilizes itself and excludes madness' (Derrida, 1978, p.62) it confesses to its involvement with madness. We go beyond what we know and so throw ourselves into silence and the possibility that we may not recover either the world or sense. We only philosophise in terror of going mad, which is controlled by confessing this very thing. In understanding philosophy as that which goes beneath and outside present discourse in search of truth, philosophers confess to the movement into silence and the threat of madness. But this confession serves to make the new structure a new discourse and solidity. The silence of madness is not then prior to philosophy; philosophy is the possibility of silence. Madness becomes in philosophy and philosophy becomes in madness. 'The confession is simultaneously, at its present moment, oblivion, and unveiling, protection and exposure: economy' (Derrida, 1978, p.62). Philosophy is the continual movement via reason, beyond reason and is thus always under threat of madness. As we move into Descartes' universe we move between terror and confidence. It is in negotiating this journey that modernity finds itself impelled into the movement between decline and crisis which characterises modern philosophy (but which also defines modern art [Lyotard, 1987, pp.71-82]).

We see here that it is in the nature of philosophy to have at its heart the potential for madness. In order for this to be overcome we have to go through past this madness and place ourselves back in a secure world again. But modernity is sometimes defined by this movement into and back from madness. Berman famously said that modernity 'pours us all into a maelstrom of perpetual disintegration and renewal, of struggle and contradiction, of ambiguity and anguish. To be modern is to be part of a universe in which, as Marx said, "all that is solid melts into air"' (Berman, 1988, p.15). Something has happened here which secures this movement not just in philosophy, but for all of modernity. The potential for madness has been normalised and
naturalised and made one of the things that defines our era. The terror of madness at the heart of Descartes' philosophy has become the way of life of the post-Cartesian world. Like those followers of Lacan who defined their identities against the cogito in favour of the historical, so modernity defines itself against stability in favour of movement or progress. We are moving closer to seeing why this is so as we move towards understanding what it is that mediates the peculiar relationship we have been witnessing between Descartes and modernity.

If the movement of philosophy, and especially a philosophy as radical as Descartes' was to his contemporaries, is so frightening, why do it? We have already seen the world in which he was writing and so have some idea of the advantages which the movement into Descartes' universe offered. In the last section we saw that for many of Lacan's followers what pursued them was not the sense of incompleteness but the fear of completeness: fear of the cogito. In running to escape this fear they reproduced much of what they were running from. In the following sections we will examine the place which Descartes himself has in his own philosophical system. In this we can see the way that the terror of entering his system transforms Descartes from an exemplar to someone who takes the place of the reader, or even to take the place of a god in the Cartesian and post-Cartesian worlds.

c) Deleuze and Guattari.

   i) The philosophical concept and their philosophical personae.

Deleuze and Guattari develop a concept of the concept which is designed in part to show that philosophy is not concerned to discover eternal truths or the essential nature of things, but is concerned to allow us to deal with problems here and now. Deleuze and Guattari's idea of what philosophy is, reflects their practice of philosophy. Throughout their careers they have sought to find concepts that would
allow us to see things in a new way: concepts which may draw on what has been but
which also show new ways in which old problems and ideas may be understood. For
example Deleuze takes Leibniz’s world which sees distinct monads which do not
interact with each other and the world ‘which is virtual, albeit actualized, in the
monads and realized in matter’ (Boundas, 1993, p.9) and develops the concept of the
fold which brings monads and objects together. The two are brought together by
them being folded together in the world. The fold then becomes for Deleuze ‘the
entity or agent that holds diverging series together and makes possible a theory of
inclusive disjunctions’ (Boundas, 1993, p.10). He is then able to use this concept in
many different places and guises to carry out this function.

For Deleuze and Guattari philosophy ‘is not contemplation, reflection or
communication’ (1994, p.6), it is the creation of concepts. This is too narrow a
definition, for while it is true of the great philosophers of the canon, for many others
who work in philosophy, the task is to understand, interpret or mine philosophical
concepts, or perhaps in the case of disciples and ‘-ists’ to guard or clarify the masters
concepts. While Deleuze and Guattari would acknowledge that such practices do go
on, they would maintain that they are not philosophy. But this is too arbitrary a
definition. We will return to this theme later as it will show us some of the reasons
why Descartes, who fits Deleuze and Guattari’s definition of a philosopher, is so
misunderstood.

For Deleuze and Guattari a concept is never simple, it always has components
(Deleuze and Guattari, 1994, p.15). It cannot be explained simply or encapsulated in
a word. The cogito for example needs to be explained. It is not just the ‘I think’, we
need to say what this means; what assumptions it needs and incorporates; what
operations it involves and makes possible. The concept defines and totalises its
components. The parts of a concept are not logically deduced but are produced by
an attempt to deal with a particular problem. It is then not a logically coherent unity.
Its unity depends on us knowing the concept. When we know it then we work with its parts whether we can immediately articulate them or not.

But since the concept is made up of definite zones which melt into each other, the components are variations like those in a 'Cartesian plane, but they are defined not in terms of constants and variables, but simply as the whole moves. So the components are in definite relations, and yet are moveable within the 'point' of the concept. The concept is 'incorporeal' (Deleuze and Guattari, 1994, p.21), but so is each part of it as a pure thing which is graspable either as particular or general as the concept dictates. Hence any object that falls under a concept is not the concept. The concept is the thought that holds its parts together as if they were not components. So concepts are not essences, but the announcement of the appearance of what the concept is. Hence the concept of bird, is not the essence of a bird or birds, but the event of the bird: a creation of a new thing and not the discovery of the essence of an eternal presence. It thus 'has no reference: it is self referential; it posits itself and its object at the same time as it is created' (Deleuze and Guattari, 1994, p.22). Events are those things which erupt in history and change all that comes after it. It does not fit in with what went before and so redefines all that comes after it. Since concepts are creations, they are events. The bird becomes when the concept bird becomes. After this, all those things which come under the concept of bird cannot be thought of in the same way again. In this aspect self reference is absolute, but as it is made up of its parts and in relation to other concepts, it is relative. It also follows that concepts are not propositional. The propositions that they produce are not to be confused with the concepts that produce them. 'Concepts are centers of vibrations, each in itself and every one in relation to all the others' (Deleuze and Guattari, 1994, p.23). Concepts do not cohere in a system but resonate. 'They do form a wall, but it is a dry-stone wall, and everything holds together only along diverging lines' (Deleuze and Guattari, 1994, p.24).
Concepts are created to deal with problems: not simple logical problems which may be dealt with in terms of formal or informal logic, but problems which a particular way of looking at things has produced but has not been able to solve. The production of new concepts gives us new ways of looking at these problems and of finding solutions to these problems. Through this process, or simply by social or technological changes, problems are transformed and so are concepts, even though the nomenclature remains the same. What Descartes held the cogito to be was transformed through Locke, Leibniz and Kant, to a point where it would have been unrecognisable to Descartes, but which was held to be substantially the same as Descartes' concept. This kind of movement means that any concept will be developed from out of what was left unresolved from the use of other concepts. So any philosophical concept will have elements of other concepts within it. 'This is inevitable because each concept carries out a new cutting out, takes on new contours, and must be reactivated or recut' (Deleuze and Guattari, 1994, p.18). No problem stands on its own. For related problems there will need to be related concepts to try to solve them. The problems which these related concepts are created to try to solve constitute a plane of interrelated concepts that help to define and delimit each other. 'A concept requires not only a problem through which it recasts or replaces earlier concepts but a junction of problems where it combines with other coexisting concepts' (Deleuze and Guattari, 1994, p.18). Hence the solution of one problem through a particular conceptualisation, leads to the reconceptualization of other problems and other concepts etc. In this complex process part of one concept may become the foundation of a new concept. There is then no end to the possible growth and connections of concepts. But this also tells us that there can be no pure creation of concepts.

Every philosophical concept is an attempt to solve a problem which is already involved in a history of problem solving and hence a history of creating concepts. This leads to philosophical concepts having an element not found in scientific
concepts. In scientific propositions, names stand as external markers of a truth. In 'Pythagoras's theorem, [and] Cartesian coordinates' (Deleuze and Guattari, 1994, p.23) the names merely help us to know what objects we are talking about. (It is not always so easy to distinguish scientific from philosophical concepts in the case of some scientific figures such as Galileo, Newton or Einstein).

Which theorem and which type of coordinates. But in the case of 'the Platonic Idea or Descartes's cogito' (Deleuze and Guattari, 1994, pp.23-24), the names become 'intrinsic conceptual personae who haunt a particular plane of consistency' (Deleuze and Guattari, 1994, p.24). Philosophy is thus always reminded of its creators and its historical nature. Descartes is not just present in his philosophy but as a character in other peoples writings, as the representation of certain attitudes beliefs or styles of thought or writing. Descartes becomes a conceptual persona when his inclusion, even if unnamed, in a discussion or conceptualisation affects the way that a particular concept is created. This is obviously true not just of philosophers but also of the characters which philosophers invent who do not just present their ideas but whose existence changes the way that the ideas are understood and presented (Deleuze and Guattari, 1994, p.63). This means that the creation of the character allows the philosopher to think things that could not be thought without it. In writing with such personae,

I am no longer myself but thought's aptitude for finding itself and spreading across a plane that passes through me at several places. The philosopher is the idiosyncrasy of his conceptual personae. The destiny of the philosopher is to become his conceptual persona or personae, at the same time that these personae themselves become something other than what they are historically, mythologically, or commonly (Deleuze and Guattari, 1994, p.64).

Hence the conceptual persona of

the friend . . . is not two friends who engage in thought; rather it is thought itself that requires the thinker to be a friend so that thought itself is divided up within itself and can be exercised. It is thought itself which requires this
division of thought between friends (Deleuze and Guattari, 1994, p.69).

As the philosopher most responsible for marking the movement away from medieval and renaissance thought, Descartes and his concepts are particularly apt to be made into conceptual personae and to appear in other concepts. As most consequent transformations of philosophy took Descartes as that against which they were reacting, Descartes has maintained his presence more than any other philosopher throughout modernity, with the possible exception of Plato. Since the presence of Descartes both in other peoples concepts and as a conceptual persona has been refracted and transformed through most of the concepts of modernity, the historical Descartes is difficult to find. As Hassan Melehy says, drawing on Frederic Jameson, 'reading Descartes is reading the history of the interpretation and reception of Descartes; and this history is nothing else than the series of marks of the institutional persistence of Descartes' (1997, p.26).

We need also to consider here something which will be of great importance later in the argument. Since Descartes uses himself in both the Discourse and the Meditations as an important character in his philosophy, we should be aware that his presence is not simply incidental, but that it is in fact doing philosophical work that would not otherwise be done. Descartes transforms himself from a philosopher doing philosophy to someone having philosophy done through them. As we will see in the section on Nancy, this transformation will mean that Descartes' philosophy cannot be taken up without establishing a relationship with the persona of Descartes. This relationship will be as important in our understanding of his philosophy as is our grasping of his more obviously philosophical ideas. So the drive to find completion which we found in Lacan, which was defined in terms of a misunderstood Descartes, is joined by what we learned for Derrida about the need to find a way through terror to find stability while doing philosophy as represented in Descartes, is also joined through Deleuze and Guattari by the presence of Descartes as a philosophical
persona that will be found throughout modernity. The characteristics which help to
define modern philosophy are beginning to be seen more and more in terms of
Descartes.

ii) Philosophers and Logicians.

Deleuze and Guattari not only offer us insight into the way Descartes' persona relates
to his philosophy, they also help us to understand the way that the Cartesians
reacted in building systems which tried to eliminate the lacunae which are necessary
to his philosophy. They can give us this insight because their understanding of the
philosophical concept fits so neatly with Descartes' understanding of his own
philosophical concepts. Descartes' concepts, and his philosophy as a system, are to
be grasped whole, through the natural light of reason. His concepts do not stand as
tightly organised logical lists but rather as a presentation of the essence of a thing.
Not something found in the thing, but its meaning, its eternal idea. Descartes'
arguments are designed to bring us to this point of recognition, of grasping the nature
of something. What Deleuze and Guattari imagine to be a radical notion which will
cut across traditional essentialist philosophies in fact captures something vital of what
Descartes was doing. Deleuze and Guattari's rejection of modernity and its strict
equivalence of essence and existence, and so its idea that a concept needs to be
either the exact representation, or else embodiment of a thing, leads them back to
the start of the modern tradition: Descartes.

It is difficult to discover Descartes against all that has come after him. It is also
difficult to allow his concepts to be themselves since his concepts require more than
just reading to understand them. The analysis Deleuze and Guattari offer of the
concept helps to make this clear. We can understand their concept of the
philosophical concept if we look at another of their concepts, that of the infinite speed
of thought. 'The concept is defined by the inseparability of a finite number of
heterogeneous components transversed by a point of absolute survey at infinite speed' (Deleuze and Guattari, 1994, p.21). We grasp it whole in one moment not as a logical progression of inferences, but rather as a single thing. The infinite speed of thought is not referring to the parts being very quickly swept over, rather to a kind of simultaneity in which each part of the concept exists as one within the concept. To grasp the concept includes all that the concept entails. This is vital since the parts are not logically consistent, but are bound together by the creative problem solving activity of a single person. The concept is held together in this single vision. If this vision is not grasped then the parts will seem to be a hotch potch and a logical analysis will tear them apart, even though the analysers have not actually engaged with the concept they have rejected. In the light of this we can understand that each part of a concept is distinct in itself, but, as part of a concept meets the other components in such a way as to become indiscernible. 'These zones, thresholds, or becoming, this inseparability, define the internal consistency of the concept' (Deleuze and Guattari, 1994, p.20). The concept itself however is a product of all its components simultaneously. As part of the concept each component exists in a special sense - as an intensity, as a thing which becomes a new thing within the concept.

It is worthwhile spending some time in exploring what is meant here by intensity as it bears on the way that Descartes understood his arguments to work. The semi-mystical aspects of the natural light of reason fit in well with this idea of intensity.

Ronald Bogue explains what Deleuze means by intensity, in terms of his understanding of individuation. Deleuze draws on the work of Simondon who looks at the form-matter distinction 'which has dominated Western thought about individuation from Aristotle to the twentieth century' (Bogue, 1989, p.61). Aristotle distinguishes between form and matter. Take the example of making a clay brick by putting wet clay, which is matter, into a wooden mould, which is the form. Clay is a
metastable substance which changes shape unpredictably. The mould sets up a particular resonance within the clay which changes its molecular organisation. Hence neither the clay nor the mould are passive. The clay and mould interact and the uneven energy distribution in the clay is evened out through the interaction with the mould. Now for Deleuze 'a metastable substance is a difference in itself . . . and individuation is a process in which difference differentiates itself' (Bogue, 1989, pp.62-63). Now as this individuation is the unifying of energy, individuation is the intensification of energy, but it is not this energy. Energy 'is not intensity but rather the way in which the latter is deployed and nullified on an extensive state of affairs' (Deleuze and Guattari, 1994, p.21). This intensity cannot be easily grasped, but it is experienced 'in moments of disequilibrium, vertigo, distortion of the senses, and so on' (Bogue, 1989, p.63). Now there is a realm in which intensities exist most basically. This realm of a 'groundless space (spatum) is an implicate from which issues a dimensional and representable space (extension) with identifiable coordinates of height, width and depth' (Bogue, 1989, p.63). This groundless space is thus 'adimensional' and hence is pure intensity. Intensity is where things come together in such a way that they cannot be denied, while at the same time refusing to be reduced to a linguistic or figural explanation. Groundless space is the realm of intensities: something which we experience but which we cannot express propositionally.

To understand this properly, we need to leave Bogue's explication and add in what Kant calls intense qualities. Intensive quality is that which is left over in our experience of the world which is a material trace. It is a left over from our senses' encounter with the world and helps us to distinguish the results of thought from those of perception. So we have an experience which cannot be reduced to intellectual categories which indicates the passage from the noumena to the phenomena. Now this place of intensity fits in well with Kant's idea that space is a pure intuition that is not formed until the imagination structures it. These senses give us the matter of
experience, while the form of experience is given by pure intuition and by the structure of thought. So sensation is prior to the application of either space or time or the categories, and is hence prior to phenomena. Although sensation passes through the form of pure intuition and thought and therefore emerges as phenomena, there is still a material trace in sensation which remains. This Kant calls its intensive quality (Kant, 1982, pp.201-202, B 208). The intensive is thus that which is necessary to experience but not reducible to the structures of thought. So with Deleuze's use of intensive qualities, they are what is left over in thought. According to Bogue, Deleuze says that Kant ignores the intensities of sense experience because 'sense experience . . . [is] a passive faculty shaped by the a priori forms of space and time, which according to Deleuze, are merely the forms of representable experience' (1989, p.58). But this is not the case. While space and time do give form to sense experience, they can only give form to it after it has been experienced. There is then a material trace which escapes representable experience. Without this element there would be no way to distinguish the idea, and hence the speculative form, the real. It thus plays a very important part in Kant's philosophy.

So why does Deleuze misread Kant here? Perhaps it is because unlike his books on Hume, Spinoza and Nietzsche, which explored philosophers 'who challenged the rationalist tradition', his book on Kant is a book 'about an enemy' (Deleuze, 1995, p.6). He intends to show how his system works and hence expose 'all sorts of shifting, slipping, dislocations, and hidden emissions' (Deleuze, 1995, p.6) that make it work, and thus to produce results that Kant would have repudiated but were none the less Kantian. In such circumstances it is easy to miss what would be considered a conscious slippage in what is perceived to be a system that excludes nothing from representation except that which we have no access to at all. Deleuze created Kant as the persona of the enemy, and therefore also himself as Kant's enemy and so turned both into philosophical personae which then transformed this manner of reading. His initial conceptualisation of Kant made it impossible for him to read him
as in some ways an ally. It is perhaps this basic martial division of philosophers into enemies and allies which causes Guattari and himself to define those who do philosophy differently from themselves and their enemies and allies as not doing philosophy at all. (This persona is so strong that it even includes an image of Deleuze raping Kant to produce the monstrous child of his book [Deleuze, 1995, p.6]). In this case we see that conceptual persona not only create new ways of thinking, they also exclude some things from being thought.

We can surely see the same thing operating in those who interpret Descartes. Descartes has become the symbol of so much of what has happened in the history of modern philosophy, whether he would agree with it or not, that he is read not so much to see what he has to say but to find the place of the start of this tradition. He is not often seen to speak for himself, but for the whole tradition which is given his name either by his followers or else by their critics. But if we return to Deleuze and Guattari we can see some of the reason that such a tradition of misreading Descartes began.

Deleuze and Guattari think of themselves as being philosophers. They name those who are their enemies logicians. The philosopher is the creator of concepts, and the logician the one who tries to reduce concepts to functions (Deleuze and Guattari, 1994, p.135). It might perhaps be more useful to cast the problem first in terms of master and disciple. How is a philosopher who counts another as master to be both a disciple and a philosopher as well? How can one philosophise when one is already committed to a set of doctrines? If one does not wish to become a dogmatist, then they must either extend the master's doctrines based on their principles, or else they must strive to purify the master's work by removing logical inconsistencies or contradictions. In Descartes' case the first approach led to the introduction of ideas like occasionalism, which was seen to be better than Descartes' policy of assurance that explanations for the interaction between mind and body were unnecessary since
he had shown that they are in fact joined (see Chapter Eight). This was caused by the results of the second approach. A philosophical concept cannot be logically reduced, but it can be forced to be logical. Taking on board Descartes' doctrines does not mean that you accept everything in them. This is especially the case when the master's doctrines are under attack. If there are gaps and imprecisions which others are exploiting, the obvious thing to do is to close them even if the master appears to have left them open deliberately. Hence we can push logic through a concept or a philosophy and make it internally consistent. This led to the transformation of the master's philosophy. But it also led to the occlusion of Descartes, for it was thought that the Cartesians had solved problems implicit in Descartes and that therefore their philosophy was a more authentic presentation of Descartes' philosophy than he could manage himself.

In Deleuze and Guattari's terms what we find is that a logician will always try to reduce a concept down so that all of its parts and relations can be expressed propositionally. On the one hand it presents itself as something of universal abstract application while on the other it is known by its ability to recognise statements as true. It is thus very close to psychology (Deleuze and Guattari, 1994, pp.138-139). In fact, in order for logic to be able to recognise truth it must divest its subjects of all but its most basic functions. 'In its desire to supplant philosophy, logic detaches the proposition from all its psychological dimensions, but clings all the more to the set of postulates that limited and subjected thought to the constraints of a recognition of truth in the proposition' (Deleuze and Guattari, 1994, p.139). This process is carried through in Descartes by the struggle between his followers and his detractors. The mere fact that they could do this to Descartes does not however necessitate such reworkings.

One limitation on what Deleuze and Guattari do is that the logician is modelled after Russell and Frege (Deleuze and Guattari, 1994, p.135). The philosopher logician
distinction gives to one side all of the creative power and to the other all of the reductive. Yet the real situation is surely much subtler than this. The struggle between creative philosophers and their followers and interpreters has been going on long before Frege or Russell wrote. More importantly both Frege and Russell were creative in their approach to logic and its related ideas. Their work transformed logic and philosophy giving birth to modern symbolic logic and analytical philosophy.

The account of Deleuze and Guattari is also unmotivated. It cannot properly account for the movement by logic against philosophy. At one point they say that, 'A real hatred inspires logic's rivalry with, or its will to supplant, philosophy' (1994, p.140). But what is the origin of this attitude? Given that those who try to clean up another philosopher’s work do not see themselves as enemies of the person they are working on, the claim that this is motivated by hate seems a difficult one to demonstrate of all those who are not creating their own philosophical concepts. The distinction between disciple and master has the advantage of being able to deal with a wide range of historical events and with those who produced both concepts and carried out some logical reductions and those who simply worked on the thought of another, as well as being able to provide a motivation for the rise of these struggles as the disciple strives to be both disciple and philosopher.

In the case of Descartes this produces particular difficulties since he is making such a radical break with the past, as well as featuring so prominently as a persona in his own philosophy. This means that it is difficult for those coming after him not to define themselves either positively or negatively in relation to him, but this relationship is clouded by the fact that the way he sets up his philosophy means that you are in relation not just to his thought, but to a representation of him as well.

So far in this chapter, we have seen that Descartes is seen as creating a representation of that thing which everyone wants to believe themselves to be: the
perfect, constant, knowing cogito. However since Descartes does not equate the everyday self with the cogito we saw that it was in fact modernity that was seeking this kind of security in the cogito and not Descartes. In this sense Descartes is closer to Lacan than some of Lacan's followers. We then saw that Descartes makes madness a central part of philosophy for all who make reason their goal. But this madness is merely a moment on the way to security. But from Deleuze and Guattari we learnt that philosophy after Descartes involves Descartes as a part of the conceptual material with which they must deal. In other words in order to negotiate the path of modern philosophy from the known through madness and back to the newly known we must go through Descartes, both as the definer of the pattern of modern philosophy, and as a character to be dealt with in modern philosophy as its principle precursor. There is just one more step needed in drawing all of this together and that is to see the way that Descartes presents himself to those who come after him. As we will see Descartes offers himself as the key by which all may enter his system. This draws all that we have seen together and propels Descartes into the heavenly realms of the ancient Greeks who personified qualities like virtue and justice and called them gods. But in this case, a man is made to represent an idea and becomes a god, but only if he is not named as a god. Modernity gave up God in order to gain a sense of autonomy but will end up with a god that cannot be named as a god, and so instead must be ridiculed in order to keep his nature hidden.

d) Nancy

In order to start exploring the way that Descartes takes on this role we must move into an understanding of the event which Descartes hopes will bring people into the rational universe. This event is one that occurs through the reading of his texts, one with historical consequences, since it stands as a break in the movement of history toward a new world. It is then useful to examine Descartes' attitude to history. It is in many ways in agreement with Lacan's attitude toward specific knowledges. He does
not forget the intuitive leaps that constitute knowledge; in fact they are vital to it in the form of the experience of the natural light of reason. It is Descartes' 'descendants' (and therefore Lacan's predecessors) who forget this. As we will shortly see, Descartes agrees with Lacan on the similarity between history and myth. Descartes has doubts about many kinds of history: our personal histories and the history of the world we find ourselves placed in; received knowledge and knowledge that is not built on sure foundations are all unreliable; in Lacan's terms we enter the symbolic world and its meanings; before we are even born we have a place in it.

Descartes however has criticisms aimed more specifically at the practice of history. R. G. Collingwood summarises Descartes' four critical arguments against history:

(1) Historical escapism: the historian is a traveller who by living away from home becomes a stranger to his own age. (2) Historical pyrrhonism: historical narratives are not trustworthy accounts of the past. (3) Anti-utilitarian idea of history: untrustworthy narratives cannot really assist us to understand what is possible and thus to act effectively in the present. (4) History as fantasy building: the way in which historians, even at best, distort the past is by making it appear more splendid than it really was (Collingwood, 1992, p.60).

What then are we to make of Descartes' pseudo-history he gives in the *Meditations* (and the *Discourse*)? This seems to confuse personal and academic history with the worst of the criticisms Descartes makes of both. This will lead to a moment of Lacanian misrecognition at the point of entry into Descartes' rational universe. To understand the 'history' Descartes gives in the *Meditations* properly we must remember what Lachterman calls Descartes' need for 'radical novelty' (1989, p.128), that is his need to deny all that went before so as to begin anew with a secure foundation. This requires that any previous truths that were discovered must be rejected until they were made part of Descartes' system, and thus properly founded. History for Descartes is the history of opinion, and opinion is not firmly founded knowledge (Lachterman, 1989, p.135). When Descartes combines the ancient
categories of *fabula* and *historia* in the early parts of the *Meditations* he is putting together what cannot be judged in terms of truth, and an account of a past event beyond memory, to produce an account of an event which has its importance not in its accuracy, but in its existence. Within the untrue narrative of a process, he is both offering his own life as an exemplar to be followed, and creating an imaginary space (Lachterman, 1989, p.134) in which he may put the body out of play and establish, fictively, the transcendence of the mind (Lachterman, 1989, p.136). The fictive nature of this event is one of many that dot Descartes' writings.

The idea of this fictive nature is very important in Jean-Luc Nancy's analysis of Descartes. In his article 'Lavartus Pro Deo', Nancy weaves a complex tapestry designed to present Descartes to us, through 'the breach into the *cogito* as it was situated by J. Derrida in "Cogito et histoire dela folie" in L'écriture et la difference', (Nancy, 1977, p.36) the lecture which we looked at earlier this chapter. The metaphor of the tapestry is a deliberate one, for it tries to bring together Nancy's very complex use of metaphors as well as his references to Descartes' many figures of speech. Nancy is developing a picture of the 'real' Descartes as well as creating a web of connections between historical events, personal correspondence, autobiographical and theoretical writing, which present this picture. Nancy makes his connections using analogy, psychological and logical inferences, and Descartes' personal history. Each type of strand is of equal value for Nancy and can flow from any point in Descartes' system, to any other point without having to worry about categorical barriers. As we shall see, this assumption of a smooth clearly divided Cartesian universe which allows for a direct analogy between, for example, external and internal vision, fails to come to grips with the complexity of Descartes' universe. Nancy's argument is then deflected into a direction quite different from that which Nancy intended. This deflection reveals a much more interesting and nuanced Descartes, than the one Nancy presents. This then gives us a clue as to how Descartes inadvertently leads his followers and detractors away from his position.
Nancy's acceptance of modernity's position on Descartes is suggestive of the way that modernity will find itself in difficulty as it accepts the security of Descartes' universe while getting its details wrong.

The central point of Nancy's article is that 'Descartes' entire discourse pertains to nothing other than the appropriation of the self', but that the way that this appropriation was 'presented as a discourse of the painting of self - conforms to the constraints of the impossibility of this appropriation' (Nancy, 1977, p.30). Nancy points to an astonishing series of dissimulations throughout Descartes' career, in which he hid either himself or his theories. Paintings, theory as painting, himself as a painting, and masks are the key figures in Descartes which Nancy uses to highlight these dissimulations.

There are two moments in Descartes' career that Nancy initially looks to, and which structure the rest of his argument. The first is what Nancy calls the most famous piece of 'ornamental history . . . [in] modern philosophy' (1977, p.14), where Descartes says, 'In order that the blush of their faces does not show, actors on the stage put on a mask. Like them, when I go out into this theatre of a world, where hither to I have been but a spectator, masked I go forward [larvatus prodeo]' (Nancy, 1977, p.15 quoting Descartes, insert Nancy's). Where, in the past he was an observer of those in the world, now he is the observed and so he puts on a mask to protect himself.

This same protective cover is revealed in his plans to publish the Discourse anonymously. Descartes likens the Discourse to an anonymous painting he will hide behind. He writes to Mersenne of his plans and says, 'Moreover, I ask that you speak of this to no one, for I have resolved to exhibit it publicly as a sample of my philosophy, and to be hidden behind the painting so as to hear what shall be said of it' (Nancy, 1977, p.17 quoting Descartes). The important thing here is that in the
Discourse he presents something of an autobiography. Yet it is an anonymous autobiography. So while he reveals himself and his philosophy, he does so behind a mask or painting.

Nancy argues that a painting with an anonymous subject is both an original and a mask of the original. It is an original because the painting stands for itself since it has no known outside reference. However it is also a mask in that it hides the person who is the subject. Now the structure of this situation is for Nancy parallel with that of God in Descartes' system. Just as Descartes finds an image of God in himself and therefore concludes that there is a God: Descartes - Image of God - God. So we have the same pattern here: viewer - image of Descartes - Descartes. God places his self-portrait inside us. But this is also the picture that Descartes paints of God. Is this 'his cogito's luminous presence unto itself' (Nancy, 1977, p.25). This is a parallel which Nancy will make the most of later.

The eye of the portrait is blind, as is Descartes' eye 'behind' the 'portrait' of the Discourse. Yet Descartes is 'behind' the portrait to help him to see other's opinions. In a similar way, in order to understand sight Descartes had to examine a dead eye, but not just examine it, he had to look through it in order to see the portrait of the world that it paints. Now for Descartes 'to appear to see, or to appear to oneself to see, is a necessary and sufficient condition upon which may be established the luminous evidence of the cogito' (Nancy, 1977, p.20). But if a portrait is good, then it appears to see, but this is inaccurate because a painting does not in fact see, so the better the painting, the more it may fool us. The appearance of clearly seeing Descartes, that Descartes gives his readers, is predicated on an illusion.

We can see this more clearly if we consider another piece of painting symbolism which Descartes uses in Le Monde. Descartes writes about our world, but he pretends that he is writing about another in order to avoid the persecutions Galileo
received. In *Le Monde* he restricts himself to looking at the nature of light because he says that to deal with all of nature would be too great a task and so like a painter who cannot represent every surface and so uses perspective in order to indicate depth, light will imply the nature of all else. But in a portrait that uses perspective, one is fooled into believing that the face has depth. Now 'one no longer knows which illuminates the other' (Nancy, 1977, p.24) the eye or the painted eye. Now since Descartes says that light is like the stick a blind man uses to 'see' with, (a reference to his corpuscularianism) and behind the painting of the *Discourse* he is blind but he uses this to 'see', then the painting is the portrait of light. A portrait, through perspective, allows the viewer to see what the artist saw, just as reading *Le Monde* allows the reader to see what Descartes saw. In *Le Monde*, light acts as that which shows us the nature of the world. As the portrait shows the nature of the self of Descartes therefore it is light (Nancy, 1977, p.24). Descartes as the illusion in the portrait is light, the light through which all will see. Descartes has become the light of the world.

Nancy then moves his argument to a more fundamental level. There is a parallel between the chaos which Descartes says God creates the world out of in *Le Monde* and the *cogito*. Both are needed as the ultimate forms of substance for matter and thought. Chaos makes possible the world that the *cogito* will draw laws from. It makes the *cogito*'s functions possible. It thus 'constitutes the very nature and functions of the *cogito'* (Nancy, 1977, p.26). Light comes out of this chaos and hence all that makes us see is built upon the darkness of chaos. So behind all that which the natural light of reason helps us 'see' and behind actual light is both darkness and chaos. 'Thus it will never be possible to remove or to raise the veil of the painting without running the risk of never seeing anything more, seeing nothing there but blackness... Behind the lifeless eyes, which deceives the eye, what does the eye (of the ) subject resemble? which Chaogito' (Nancy, 1977, p.27)?
Now the primary forms of substance - chaos and cogito, since they are primary, do not resemble anything and hence cannot paint themselves. Yet the cogito must be able to show itself in order to present itself, in order to be known at all. So the cogito can only be seen through others and not for itself. The cogito can be presented in the Discourse since it is anonymous 'and hence of the one who gives himself' out as the method of certitude and the certitude of method' (Nancy, 1977, p.28). As the subject, the author may present himself as a pure identity with himself and hence is the 'author par excellence' (Nancy, 1977, p.28). Anonymously, once again, larvatus prodeo. But the anonymity is only temporary, it is to be undone after Descartes is identified as the purely identical subject.

At one point, Descartes wanted to have Le Monde and the Discourse published after his death (Nancy, 1977, p.29). In death he has returned to himself and is one, and therefore the presented self will not fail expectations. After death the self is known simply by the writings that are left. However since the Discourse is written for others, and hence Descartes presents things more carefully than if he were simply thinking about things himself, he must therefore think things through more carefully. Now because Le Monde is like a painting that uses perspective to help the reader, and he imagines it being read by those after him, he then sees his own work most clearly through his own dead eye and so he then sees himself as he is when he is truly himself. So, just as in the painting, where he views himself through his dead eye, his real aim is not instruction, it is to present and gain the subject: that is to become ideal.

Descartes' subject is not then given by interiority but rather an exterior exhibition. The subject is known through a 'fictive viewer' (Nancy, 1977, p.29). He does not come to know himself through the experience of himself, but simply through the 'auto conception' of being (Nancy, 1977, p.30): the thinking substance's creation of itself as a thinking thing. It makes itself believe itself to be what it imagines itself to be.
is not an interior, but an exterior analysis, which can only be seen through exhibition and signs. All that can be seen is surface, not substance, because thinking substance cannot be seen. Hence the surface founds the substance since one only knows of the substance through the surface. But what gives the substance a surface? It cannot see itself in the mirror for it has no image, so it must paint its own image. The order of image is then the order of thought (Nancy, 1977, p.31). But the order of image must necessarily distort things to give a reality beyond the medium of pure thought.

Now the mask is part of two different orders of analogy. The mask's eye is like the painted eye which hides Descartes' (blind) eye. The mask's eye is also however a hole, and is thus like the eye, which is a hole in the head and like the pupil which is a hole in the eye. So we may see through Descartes' mask to see his real eye, and find that that eye is blind. 'By masking himself Descartes has shown everything' (Nancy, 1977, p.32). The mask is theory itself. The theory that allows for the self to conceive of itself; theory that deceives the eye (in order to show truth). The mask hides a person who becomes another person if the mask is taken for reality. This other is seen in the mask - it is a god (Nancy, 1977, p.34). It is one with itself, since in reality it is the tool of illusion that hides its true nature. Larvatus prodeo - masked I go forward - now becomes Larvatus Pro Deo - I am masked therefore I am God. Theory masks Descartes and so expresses Descartes as the one who would be God, who would give truth. He does this by distorting who he is as a seer and what he sees. The mask of theory creates the subject and then presents Descartes as that subject.

Nancy's case seems to show that the very tools which Descartes uses to find the self are those which ensure that it can never be recovered. The cogito is only to be discovered by dissimulation and this same dissimulation exposes the cogito as unreal. It is an illusion which requires conjurer's tricks in order to convince us of its
reality. As such Descartes must disguise his identity as a conjurer. His appeal is to God, both the ultimate illusion and illusionist. This masks Descartes' move to the centre of the universe as God and hence his use of the mask to disguise his true nature exposes not only himself but also all theory that is created out of the cogito. But Nancy's case is built upon a particular view of Descartes' position and its assumptions. If it should turn out that Descartes' system is more resistant to a smooth analogical analysis than Nancy imagines then his entire reading begins to fall apart.

Like Lacan's followers, Nancy seeks to reduce all pure, ultimate and transcendent concepts in Descartes - the cogito, the natural light of reason and God - to illusions so that he can show that there are no such things. In fact, as Nancy tries to show, the attempt to discover them reveals their illusory nature. For Nancy, it is Descartes' metaphors of illumination which show the darkness in which his philosophy is mired. Ultimately the necessary and pure are contingent and complex.

Larvatus pro Deo in all initiations, in all sacred rituals, the sole function of the mask has always been to hide a person who was not a person, who ceased to be a person once he masked himself. In his place the mask shows the figure of the god, never visible without a mask. The subject of Descartes is initiated into the theory of the subject by uttering larvatus ergo sum ['I am masked, therefore I am']' (Nancy, 1977, p.34).

But the attempt to reveal, unveil, expose the truth behind the mask which presents itself as reality, is again an attempt to naturalise the historically contingent and to found a non-foundational philosophy.

The first point that needs to be made is that Nancy assumes a simple equivalence between the cogito and the subject. In his analysis they are both at various times the self which Descartes is trying to recover. But as we have seen, what Nancy calls the subject would merely equate to the Kantian empirical subject, that is the self that we
find in our ordinary everyday ways of being: the 'we' of our everyday experience with all its irrational, lustful, changeable, forgetful and trivial concerns. This needs to be contrasted with the cogito which is the self purified by method in order to think abstractly about problems. When we make the cogito into the subject we make it do more than it can and so find ourselves in just as much confusion as Descartes would be in if he made this equation.

As an illustration of the difficulty that can be caused by equating the cogito with the subject, consider Kofman's argument in 'Descartes Entrapped' (1995). Kofman makes the mistake of confusing the two when she offers a Nietzschean analysis of the cogito. She attacks Descartes' idea of the simplicity of the cogito, claiming, that it hides a very complex group of things, none of which amounts to an active 'it'. 'It is, indeed, the grammar immanent to language that obliges you [Descartes] to imagine the fiction of a fixed subject, identical to itself, cause of the activity indicated by the verb [it thinks]' (Kofman, 1991, p.186). She quotes Nietzsche who says of the cogito's simplicity, "everything that is simple is purely imaginary, is not 'true'. But that which is real, that which is true is not one nor is it reducible to unity" (Kofman, 1991, p.184, Quoting Nietzsche, italics mine). But surely what may be said of 'simple' may also be said of 'pure'. The cogito is then, by this argument not 'purely' imaginary.

There is something in the idea that cannot be reduced to the unity of nothingness. A good deal of the resistant nature of the cogito can be accounted for by the confusion that both Nietzsche and Kofman have made between the cogito and the subject. If the cogito as pure and self-identical, is thought of as being the contingent self, then this concept collapses into absurdity. However if the cogito is not the empirical subject, then this absurdity acts as a reductio ad absurdum and keeps the idea of the cogito alive. There is good reason to maintain this distinction since the reduction of the cogito to the subject is a definite historical event which occurs well after Descartes. As Balibar says, such an idea is 'a mere retrospective illusion which was forged by the systems, the philosophies of history and the teaching of philosophy in
the nineteenth century. Neither in Descartes nor even in Leibniz will you find the category 'subject' as an equivalent for an autonomous self-consciousness (a category which itself was invented only by John Locke), a reflexive centre of the world and therefore a concentrate of the essence of man' (1994, p.6).

Now the importance of the confusion between subject and cogito can be seen in Nancy's treatment of chaos and cogito. Contrary to Nancy, chaos for Descartes is not ontologically before anything, it is transformed into light and the objects in the universe by the laws of nature which God had decreed. Whereas the cogito is not unrepresentable, it is presented to us via the experience of the method. Cogito is a certain kind of thought. It presents itself through thought. Now the cogitans is hidden as a thinking thing. But the thinking thing is the essence of the mind, and so on Descartes' account it is revealed. The cogitans is known by its thoughts. Without it, there is no thing for the thing which thinks to think. So when Nancy says that thought is merely an exhibition or sign because thinking substance cannot be seen, he is mistaken. To return to the relationship between chaos and the world as illustrations, objects are for Descartes essentially extended. Objects are extended things, but the thingness cannot be separated from their extension. So with the cogitans, it is a thinking thing, but its thingness cannot be separated from its thought. There is no behindness. Mind is a spiritual substance and there is nothing behind this, just as material is extended substance and there is nothing behind that.

The central and potentially most devastating point that Nancy makes is that Descartes takes the place of God for those who enter his system. Central to this idea is the analogy between the natural light, of reason and physical light and the consequent analogy between internal vision and seeing the world. Since Nancy is able to show that illusion and blindness are the necessary requirements for the discovery and presentation of clear vision in both the physical and mental realms, then it appears that even if he has confused the subject and the cogito, nonetheless
the cogito is in trouble if its clarity is founded on illusion and blindness. But let us start to tease some of these apparent analogical coincidences apart. In order for Descartes to see how the eye works, he must look through an eye removed from a body: a dead and therefore blind eye. But this does not imply, as Nancy says it does, that blindness is necessary to discover vision, for Descartes' eye is not part of the blindness of the eye he is examining, rather, the dead eye is part of the vision of Descartes. Nor can we say that the removed eye was really blind. The eye cannot be blind by itself for it was simply a part of the process of seeing of the person whose eye it was. A rock or a cardboard box or an earth worm cannot properly be said to be blind since there could be no sense in which they could see. They do not see darkness in the absence of light. They do not see nothing. They simply do not see. In the same way the eye by itself does not see and so is not blind. The only vision present in the experiment is Descartes', and it defines the entire event.

Nancy also argues that because a painter uses perspective to create the illusion of life and depth, and Descartes sees his analysis of light in Le Monde as being like perspective in that we can see the entire of the nature of the physical world if we understand one aspect of it, and since he also uses the figure of a painting through which he will discover the public's opinion of his philosophy, then his 'portrait' in the Discourse is a picture of light, but since it is a picture of him, he becomes light for those who are fooled by the picture. In order to get some 'perspective' on this confusing series of analogies we must first come to understand what Descartes means when he says larvatus prodeo.

Nancy interprets larvatus prodeo as an attempt by Descartes to hide his historical, contingent self, so that he may then present it as universal and pure. In order to see what Descartes is doing here we need to look at the rest of the notes which go with this thought.
Just as Comedians are counselled not to let shame appear on their foreheads, and so put on a mask: so likewise, now that I am to mount the stage of the world, where I have so far been a spectator, I come forward in a mask.

When ingenious discoveries were presented to my notice as a young man, I used to try myself on my own account whether I could make the same discoveries even without reading the author; and from doing this I gradually came to notice that I was using certain rules.

The sciences now have masks on them; if the masks were taken off they would appear supremely beautiful. On surveying the chain of the sciences one will regard them as not being more difficult to retain in one’s mind than the number-series is.

To all men’s minds there are bounds set that they cannot pass. If people cannot use the principles for discovery, through lack of wit, nevertheless they can recognise the true value of the sciences; and this is enough to enable them to form correct judgements as to the estimate of things.

Vices I call diseases of the mind: they are not easily diagnosed as disease of the body; for we have often known true health of body, but never of mind.

In the year 1620 I began to understand the foundations of a wonderful discovery.

A dream, November 1619, about Ausonius Ode 7, beginning Quod vitae sectabor iter? (Which road in life shall I follow?)

It might seem strange that opinions of weight are found in the works of poets rather than philosophers. The reason is that poets wrote through enthusiasm and imagination; there are in us seeds of knowledge, as of <of fire> in a flint; philosophers extract them by way of reason, but poets strike them out by imagination, and then they shine more bright.

The sayings of the sages can be reduced to a very few general rules.

There is in things one active power, love, charity, harmony.

The Lord has made three marvels: things out of nothingness; free will; and the Man who is God. (Descartes, 1970, pp.3-4).

The first thing to note is the connection between what Descartes says of theatrical masks and poets. Poets discover truths via imagination and passion. These things make these truths easier to grasp and more pleasurable to contemplate. There is then some reason to suppose that the autobiographical style of the Discourse and the Meditations is a deliberate attempt to capture and deliver the wonder of the
message that he had in a way that would reach people more easily than a dry philosophical work.

This supposition is given added weight in the light of what Descartes says about the sciences. The sciences have masks on them. Although Descartes was able to discover truths for himself after he was aware that they existed, for many people there is a barrier between science and the world which science is not able to deliver itself from. For Descartes, science was a series of discreet disciplines and ideas with no apparent rational connection between them. They should however be like the number series. Once you have grasped the principles of numbers you can count as high as you like and it all makes perfect and straightforward sense. So what is needed is for someone to show the essential elements in all the sciences and to give these essentials a single clear foundation. This Descartes knows he can do since he has managed to confirm for himself, using his own simple set of rules discoveries made across the sciences. But how is he to remove the mask over the sciences? Not everyone is able to understand the sciences. Descartes must help them to see their beauty. But how to show them its beauty if they cannot understand it? The answer to these questions is that Descartes, like the comedians, must put on a mask himself. A mask which will turn him into the representative of all, so that all may go through the process of seeing the masks over the world for what they are and emerge with a clear vision of the unity and beauty of science. Then, even if one is not able to do science or even original philosophy for oneself one may know the value of the application of the rational methods found in science to their every day judgements.

We can now return to our earlier question about Descartes becoming light through his metaphorical portrait. Descartes can use light in Le Monde in order to show everything about physics because of his attitude to the single set of principles that bind all the sciences together. Once we have understood the nature of light then the
principles by which all else may be understood have been established. He brings light to the sciences then, not by becoming the light of the world, but rather by showing the way for everyone. He does this by establishing the context in which the world and its events can be understood. Hence Nancy's conclusion that theory is a mask which hides Descartes' true contingent nature while revealing him as light and God is backwards. It is Descartes' taking on of the mask that frees theory of the illusions of false disciplinary boundaries and the obscurities of chaotic Renaissance exploration. Firstly the parallel between Descartes - image of God - God, and that between viewer - image of Descartes - Descartes, breaks down, since in the second series Nancy's point is that Descartes is hiding himself, while in the first series God is revealing himself. There is however another and more devastating reason why this parallel must be reworked. To anticipate a later chapter, the first series should really read Descartes - sense of imperfection - sense of positive non-derivable perfection - deduction of God's essence. The image of God is not floating around in our minds waiting for us to bump into it, it is rather found through our sense of incompleteness in the face of a sense of positive perfection which could not be derived from the finiteness of the world either by deduction or negation. This idea leads us to the idea of God. The analogy between inner and outer vision clearly breaks down here as there is nothing to 'see' that is in any way like a portrait. Indeed it is our incompleteness of vision that leads to us knowing the essence of God.

Given the breakdown of the analogical system based on a smooth universe in which essence equals existence, which Nancy has been setting, and the non-equivalence of the subject and the cogito, we may expect a disruption in his conclusions. Nancy assumes that the image of God which Descartes paints, must be the luminous presence of his own cogito, since Nancy assumes that Descartes must be seeking the experience of presence - that is, that presence to himself is what is operative in Descartes' argument. But the quest for presence is more a result of the Cartesian tradition than of Descartes. For Descartes, we are not one with the image of
ourselves and so discover God, which is the Cartesian foundation of modernity, we are one with difference - with the difference from ourselves (see Chapter Four). It is the difference from the self that enables us to know that there is more than the self and hence, eventually to reconstruct the world. Without the self's union with its difference, there could be no certainty of world, only solipsism. The presence of the self to the self is necessary to reach difference. So if the analogy Nancy suggests is to be carried through then what we actually discover in the hidden Descartes is not a parallel for the revealed God, but rather for the mediating steps in the discovery of God's existence: viewer - Image of Descartes - hidden Descartes, and Descartes - sense of imperfection - sense of nonderivable positive perfection - revelation of God's essence. Like the relationship between Descartes' eye and the dead eye, and the use of light as perspective in Le Monde, the mediating steps put other things in context. What are these mediating steps? They are the steps of the argument which Descartes is making. It is then more accurate, since the vision metaphor is faulty, to think not of a viewer of Descartes as Nancy suggests, but of a reader of Descartes. What is it that the reader reads but of Descartes' movements of thought. Descartes invites the reader to follow him, not just to read him but to go through the same process with him. The reader is not then discovering Descartes as God, but is rather discovering themselves as Descartes. It is Descartes' vision and Descartes' light that we follow31.

We can see here the power of our Lacanian sense of incompleteness, the failure to be whole, which may have lead people to come to Descartes in a search for completion. This occurs because of the reader's acceptance of Descartes as the one who can take us through to the other side of our doubts. Before we enter into the process of doubt, Descartes assures us that he has 'reached a certain and evident

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31 As we will see this may lead to trouble if we do not learn to see for ourselves. Once we have scaled Wittgenstein's *Tractatus*, he advises us to throw away the ladder, for we will not need it again.
knowledge of the truth' (1983, p.161). Given what we saw in the section on Derrida and philosophy, this is important in order to try to keep the fear at bay. Hence as Descartes removes our certainties with his doubts, it is in the context of his assurance that all will be well. We must accept Descartes not just as guide, but also as master. Earlier in this thesis, we rejected attempts to reduce Descartes' philosophy to his psychology. But we did say that psychology could influence what a philosopher was interested in exploring. Thus it may influence the acceptance and response to another philosophers work. Given a desire strong enough, one may resolve to accept Descartes' assurance and hence his philosophical journey and its conclusions, which will make the acceptance of the security Descartes offers as much a matter of psychological satisfaction as of philosophical conviction. It is thus his reassurance that is with us as we travel through his doubts and fears and give ourselves over to them. The more we allow his doubts to be real for us, then the more we have to cling to him and to his reassurances as the way forward. As we move towards the certainty he offers us, we also become dependent on him. Given this, it is difficult to know how one would distinguish between the feelings of relief at coming to Descartes' point of certainty, and the experience of discovering an essential truth. The experience of finding truth is bound to that of accepting another's authority. Our autonomy is tied to servitude. As we saw in Chapter Five our achievement of autonomous subjectivity is also our becoming subject to nature and to the community of reason.

This is very similar to Lacan's account of the effect of the mirror phase. In the mirror phase we are projected by our biological incompleteness into a false unity which will

(Wittgenstein, 1974, p.74). But if we do not learn to see for ourselves, how are we to find our way after we have closed Descartes' book?
provide us with constant tension. In entering Descartes' rational universe we are projected by the insecurity of our pre-Cartesian universe into an acceptance of Descartes' solutions. This creates a tension between the self and authority that provides an impetus to the domination of new traditions and institutions that will gradually take the place of the security and authority of the Church. The child acquires its unity by assuming an image for itself which is not itself. In Descartes, we acquire our solidity by recognising that the body is a mask for the soul, and that it is the soul that is solid and permanent and truthful. To enter Descartes' universe we either enter with Descartes and recognise ourselves by its coincidence with the story he tells, thus overcoming in a jubilant activity the restraints of the body that hold us away from ourselves, or else, we enter through being a part of the post-Cartesian era, accepting things because they are given to us. We accept the symbolic, the dogmatic, the prejudiced. The search for the essential has given us the essence of another and not of ourselves. We know through another, and so we know ourselves through another.

The reason that Descartes has become the representative of the modern Western tradition, is symbolised in the cogito. But Descartes cannot really be reduced like this. His work is complex and refuses complete or categorical reduction. But what his followers wanted was simplicity and totality, it is this desire which helped to make them his disciples. The longer the Western tradition followed Descartes, the less it was in his image. The initial misrecognition that brought people into Descartes' universe widens as each successive generation (mis)takes the voice of science and philosophy as the voice of reason. Reason has become embodied in those who can give the answers. Lacan then is one who stands at the end of this tradition and gives us the answer that there are no final answers, just interesting 'solutions'. What separates Descartes and Lacan then, far more than their actual differences, is the history of reason in the West. This is a history of dogmatic authority. Descartes' turn to reason and away from authority and prejudice, is the beginning of a history of
prejudice and authority which both Lacan and Descartes reject. Lacan should then not be seen as rejecting Descartes as much as beginning a renewed attempt to find the truth (in the Lacanian sense), taking into account the history of attempts that began with confidence in objective knowledge and a clear form of transcendence.

There is then a great deal that we may learn from Descartes that has relevance for the present age. Firstly, we can see that Descartes does not believe that complete transcendence is possible, hence complete knowledge is not possible, and truth will only ever be partial. None the less he does not proclaim the death of knowledge or truth or transcendence or mind. He lived with the imperfect categorisation because it was what he regarded as true and hence resisted dogmatism and the simplicity of Aristotelean philosophy. This is why it was so vital for Descartes that everyone come to the truth for themselves. He did not want us to simply take up another's truth for ourselves. When the thought of an original thinker is taken up by those who lack the drive of the master, then the tradition that is created is no longer the reflection of a personal intellectual encounter with reality, but becomes an abstract system to be learnt and mastered and manipulated. Such an abstract system does not have much tolerance for the complexities, partialities, and necessary difficulties that the originator found to be unresolvable given the actual state of the world. These problems are levelled out with logic and become something which can be passed on dogmatically without a sense of conviction that comes from a personal exploration of the problems involved. These traditions then do not encourage you to think things through outside of the system, but simply to be able to manipulate the system. Descartes unintentionally brought people into this tradition by having them take the journey into his rational universe as Descartes rather than as themselves. But in the writings of Descartes such ideas are clearly rejected. Tradition provides a grid through which to read the master to ensure that he never escapes those who have mastered him: that is his followers; those who call him master.
e) Conclusions

We philosophise in terror and we stabilise it by making the new. But how do we make the new? Through what process is it established? For this we must go back to what we learned from looking at Lacan and Nancy. We do not simply philosophise in terror, we do so in the confidence that we will find the answer. Modern philosophy is characterised by this confidence, even though it cannot account for it. Why did Nancy read Descartes as if his system was smooth, as if internal vision paralleled external, as if the cogito was the subject? It was not an idiosyncratic reading, but rather drawing in the standard reading of Descartes. But if this is the picture of Descartes that modernity accepted, then the system of analogies which Nancy works with do not break down. Not only then does Descartes become our master as we take his place, as we read and participate in what Descartes said, but if the clear categories and distinctions which characterise the majority of modern thought find their origins in a simplified, purified reading of Descartes, then Descartes does become a god as Nancy first argued based on this interpretation. Such a god cannot be acknowledged by modernity and so he must haunt modernity as the place of assurance, the place of certainty that none may obtain because this position is based on a misunderstanding of his philosophy. So even for those who reject Descartes, it is his presence as the declarer of certainty which defines their activity. The possibility of rational certainty outside of logic or mathematics starts with Descartes, hence all who find Descartes an obstruction to certainty or who try to reduce the world to logic or mathematics in order to attain certainty are still relying on

32Interestingly, Gaukroger argues that Descartes' view which will be discussed in Chapter Seven, which says that the laws of this universe are not necessary laws for God but are binding for us, means that our certainty of knowledge is not dependent on us knowing in the same way as God knows, since our conviction of truth convinces us of the necessity of these things whereas God's relationship to our truths must be completely different (Gaukroger, 1989, pp.60-71). Therefore he says that 'We simply do not need God's knowledge as a model, only God's guarantee for our knowledge, and this is not such a high price to pay when we realize that it takes away from a conception of knowledge which is inappropriate and unrealizable' (1989, p.70). In a similar way those who reject Descartes' methods may still rely on Descartes' guarantee that knowledge is attainable.
the ghost of their denied god. Those however who reject the idea of certainty do so because they find it inadequate to their experience of the world and so either reject the world built on the misunderstanding of Descartes, or else they embrace a non-reductive rational universe of the kind which Descartes produced and made possible.

This can then explain a paradox of modernity. Much of modernity sought for the foundation of secure knowledge, confident that the tools and principles it used in this search were certain and secure. Without too much simplification then, the dominant stream of modernity can be seen as the search for its own foundations. The constant Hegelian movement of philosophy which Derrida referred to as crisis, decline, crisis, etc. did not daunt philosophers from attempting to find a foundation until the end of the Nineteenth Century in pragmatism, and the latter half of the Twentieth with Wittgenstein, structuralism, post-structuralism and postmodernism. Prior to this, modernity was haunted by their unknown god - Descartes - the promise and assurance of certainty. And yet these movements from pragmatism to postmodernism cannot easily escape Descartes. They may kill the false god, but since he is a false god, they unleash a much subtler Descartes, a Descartes they are not aware of.

This then can explain a paradox of postmodernity. As a generalisation, postmodernists in the main, reject all ideologies and discourses which contain unfounded universals, hidden assumptions and metaphysical entities. These discourses fail to live up to their own standards, they are full of contradictions and self-delusions. Truth, knowledge, the ultimate, the subject, reality are all ideas which have sorry political pasts and which fall apart upon analysis, and hence are rejected. This is however paradoxical. If these postmodernists were, in turn, true to themselves, they should maintain metaphysics, ontology, epistemology and ethics since these discourses are known to be partial, imperfect, illusory etc33. They can

33With the possible exception of Derrida.
then function without the threat of becoming absolute and prescriptive. However this is not what is wanted. Postmodernists of this type want consistency within a certain logic. A logic defined by key terms and concepts such as the partial, the gap, the local, absence, the centred etc. These things are seen as the essences of the world (or of discourse or culture if it is held that we cannot get to the world or that the idea of reality breaks down) and of analysis. They have rejected the Cartesian god and in return have gained Descartes as hidden master, and comrade. Much of what they reject in modernity Descartes would have also rejected. Gaps and partialities are necessary to their world view as are the limits to our knowledge and the non-equivalence of existence and essence in Descartes. Like Descartes, they want to find a secure way to be in the world, they cannot simply accept the discredited modern world and live in it, they want to find a secure place to be. Given the terrors of modernity, a universe capable of only partial understanding gives security if we know that this is the only kind of knowledge we can have and that it preserves us from political terror.

Derrida understands philosophy as the movement either within a discourse which is safe but not creative or else the movement beyond which threatens madness. But where does postmodern discourse dwell? It lives in the cracks, gaps and limits of modernity. It has given up metaphysics as speculation based on a hubristic confidence in logic and reason. It does not go beyond discourse into the new, it rather harvests the madness implicit in modernity and holds it up to modernity’s face as evidence that all of its efforts were in vain since they contained, and yet hid, their own opposite. This brand of postmodernity then hides itself in the shells of dead theories and thinks itself protected and secure. But as it becomes comfortable in its home it becomes a part of general discourse. This same discourse is then in danger of being overlooked as anything interesting or else of being disrupted by discourses such as Derrida’s which gave it birth.
We do not have space here to do more than speculate, but it seems plausible that the terror which Derrida described is operative here in the postmodern world just as it has been in the modern. The madness and terror of embarking on a philosophical journey gives the reward of a return to sanity and security by its end. But if the followers of Descartes found a place that was secure, they did not find it secure enough. The relationship between the master and the disciple which we looked at with the help of Deleuze and Guattari, showed us that the followers of a creative philosopher often find themselves needing to revise the master's work in order to call themselves both philosophers and disciples. They needed to try to rid Descartes' philosophy of any possible reason to doubt it. In doing this they had to take from Descartes' thought its sense of a living experiential philosophy and turn it into a series of dogmatic ideas which fit together logically, but which fail to adequately reflect the world. The sense of a natural philosophy which anyone could grasp via the natural light of reason is lost. In just this way some of Lacan's followers found themselves naturalising the idea that we are the results of our history, because they could not live with Lacan's idea that the fragmented body was itself an illusion. But there is a level deeper than the relationship between master and disciple. While many\textsuperscript{34} of Descartes' disciples allowed him to take their place in order for them to enter his system those who rejected Descartes' doctrines and yet sought the benefits of living in the rational scientific universe he made possible, produced Descartes as a god who guaranteed that their philosophical and scientific enterprises could succeed. This is the state of much of modernity. It believes in the attainment of knowledge and the final success of science, but does not know quite where to point if you ask for evidence outside of the success of science.

In the coming chapters we will see how Descartes' move to hide himself in order to bring others into the rational universe leads to the transformation of his universe from

\textsuperscript{34}I do not include Malebranche in this group, as he produced a system which was both positively influenced by Descartes, as well as being original.
one that is non-reducible, defies complete description, and is not even logically neat, to the smoothed out, clearly defined world, leads to the death of one God as another god (the hidden Descartes) is created. As a result we will see that you cannot remove those parts of Descartes' universe which have been an embarrassment to modernity, such as God or the immaterial real soul without there being other serious problems arising within the rational scientific universe.
PART THREE: REASON AND SCIENCE.

Chapter Seven. The Idea of God: The Trace of the Infinite

At this point it will be useful to rehearse what we have seen in the previous chapters. We saw that Descartes was attempting to create a new way to be in the universe that allowed for the practice and growth of a rational science, and the unity of that science with culture and religion. Descartes achieved this through the method of doubt, which reduced the world to the point of indubitable certainty so that he could renew it as a rational, united universe. But to have other people also become a part of this universe, they also had to follow on the path Descartes had laid out, with Descartes as their constant guide. As we have just seen, there is some question as to whether those following this route were really going through it themselves or merely observing Descartes' progress and relying on his eventual success. If the latter were the case then Descartes takes on a more significant role, either taking the place of all who follow him like this, or else, if we misunderstand Descartes' system then Descartes can become a god.

But modernity and most significantly, the enlightenment, does, for the most part, misunderstand Descartes. There is a strong refusal of Descartes' acceptance of the necessity of the unknown, of the limits of knowledge. Descartes' limits on knowledge are not like those of Kant who sets boundaries around what could be known, because he sets them within the universe of what could be known. For this stream of modernity science and philosophy should have no essential limits. For them, a thing's essence must be expressed in that thing's existence. What is discovered of a thing exhausts its existence. So since the cogito is spirit and the body extended then they cannot intermix. This means that the cogito must be equivalent to the everyday self. This basic modern intuition turns Descartes universe into something it was not. As they reject Descartes' doctrines, they determine that this universe is rational and
that true knowledge both of and in this universe is possible. Descartes is made to look ridiculous by interpreting his arguments as if they equate what he was doing in his discovery of essences with what they do in defining an object scientifically. As far as much of modernity is concerned his complex system of ideas are reduced down to being synonymous with 'I think, therefore I am', which is judged to be a good thing although not good logic, and 'Cartesian dualism' which is variously thought to be anything from a very bad thing, to being so obvious we need not mention it. Hidden behind this reduction of his ideas, he stands as an assurance that all will be well, that everything can be worked out and that essence ultimately will be found to equal existence.

Part Three will argue that the things which Descartes said could not, in principle, be known, are not glitches which can be overcome, but rather that they are necessary to Descartes' universe and, while it is too strong a claim to say that it is necessary for any rational universe, this part will argue that the rejection of these lacunae has in fact led to the breakdown of the united universe which Descartes created and plays a role in the forming of the current division between the subjective and objective and the (usually hidden) division between reason and science.

For Descartes, God acts as a guarantee against illusion as well as being a guarantor of the truth. This is sometimes difficult for modern philosophers to accept and so God's role is minimised. We need to recall Bordo's point that we are living in the world for which Descartes laid the foundations. One of the key foundations of this world is God. Even if we do not accept Cartesian dualism, none the less we move around the world of objects confident in our use of them and in their consistency. The world of objects is treated by most philosophers and scientists as if soulless, inert, and predictable. To make our experience of the world what it is, something had to guarantee this regularity. This thing could not be a mere hypothesis, it had to
be at the centre of the already existing universe. Something which everyone believed in, but which also had the power to change people's beliefs about the world. It was never an option for Descartes simply to use the idea of God to gain his philosophical ends. Firstly, Descartes would have found the idea of using God blasphemous, and secondly, to conceive of a complete philosophical system without God in some central role would have been impossible for Descartes. It is only after Descartes has shown how God establishes a scientific and rational universe that God begins to fade behind the explanatory power of science. Without God, an atheist mathematician dealing with clear and distinct ideas could be made to doubt. 'The atheist, for Descartes, occupies the peculiar position of one for whom the Evil Genius hypothesis and the doubt engendered by it can never be dispelled' (Bordo, 1987, p.21). For most clear and distinct ideas may not be known to be true, if the world is not secure and certain. Only God can guarantee their veracity.

Let us review some of what we have seen and preview what we are to look at. When Descartes discovers that he is the cogito and therefore the cogitans, he is still in a universe that has not yet been secured from doubt. His point is that even in a world where an evil genius may be deceiving us, and nothing may be as it appears, we can still be sure of 'cogito ergo sum' and 'sum res cogitans'. Now the chief speculative doubt which makes this possible is that of the evil genius who deceives us. But here, as we will see, Descartes is able to show that the idea of God cannot be produced by such an evil genius but only by God. Since God would not allow such an evil genius to rule, we may be certain that we have the capacity to know the

35 For an exposition of the movement from theism to atheism through the rise of mechanism in early modern Europe see At the Origins of Modern Atheism by Michael J. Buckley.
truth. So we need God in order to know anything outside of ourselves, and we cannot know God if there is no God.

So the Atheist who fails to conclude the existence of God, who cannot see Him, has failed to enter fully into a reasonable universe. So the cogito is not sufficient to found knowledge. Charles Taylor says that 'I think, therefore I am' changes the world as: "God's existence is [now] a theorem in my system of perfect science. The centre of gravity has decisively shifted." (Taylor, 1992, p. 157). This tends to overstate the role of the cogito in Descartes' philosophy. God is not just a theorem, but is rather a certainty which is as sure as the certainty that I am.

But this does not explain why Descartes is so convinced that the proofs he gives for God's existence work as proofs. How can he be so sure that he and anyone else who follows his process will be convinced that God exists? The answers to these questions can be found by examining the Meditations.

Descartes wrote most of his works in French, in simple language. The Meditations however he wrote in Latin, the language appropriate to present a theological Treatise to the Catholic church. The Meditations were addressed to 'The Most Wise and Illustrious Men: The Dean and Doctors of the Sacred Faculty of Theology in Paris' (Descartes, 1983, p. 154). It had the aim of proving the existence of God and the separability of the soul from the body and therefore of the soul's immortality, in such a way as to remove the 'principal reason which causes many impious persons not to desire to believe that there is a God, and that the soul is distinct from the body' (Descartes, 1983, p.155). This however needs to be put in the context of the famous letter Descartes wrote to his friend, Father Mersenne in which he says 'these six Meditations contain all the fundamental ideas of my physics. But please keep this quiet, because if they knew it, the Aristotelians would be very reluctant to accept my
views. What I am hoping is that they will become convinced by the very
reasonableness of my doctrines before they realise that I am rejecting Aristotle's'
(Bair, 1966, p.x, quoting Descartes). So as Descartes is reworking philosophical
theology, he is simultaneously putting it in a new universe based on, and centred
around, reason. It is not the reason based on the dogmatics of Aristotle, but rather
reason based on his scientific rational model. So while on the one hand he is
demonstrating the immortality of the soul by showing its independence of all
doubtable physical properties, he does so by placing this proof within a scientific,
reasonable universe where each move leads on to the others through a process that
cannot itself be doubted. The proof of the immortality of the soul is the first
successful move away from the chaotic world that he describes in the first Meditation
and in the beginning of the Discourse on the Method to the confident and ordered
world that is created by the sixth Meditation. It is through the establishment of the
soul as the thinking thing, and hence as the way to find the truth that truth can be
found.

Returning to the argument in the Meditations. Descartes sets out to remove the
reasons people have for not believing in immortality or in God because 'no one has
been able to demonstrate these two facts' (Descartes, 1983, p.155). He was
convinced that the proofs he provides 'are such that I do not think that there is any
way open to the human mind by which it can ever succeed in discovering better'
(Descartes, 1983, p.156). So he expects these arguments to convince in a way that
previous arguments have not.

The first argument involves the language of the traditional scholastic causal principle
(Williams, 1972, p.349), although it 'cannot be reduced simply to some form of the
traditional causal proof of God's existence, its special characteristic is the use made
in it of the idea of God as the infinite perfect being' (Copleston, 1985, p.101). As we
can see in the Objections, the second argument was treated as the ontological
argument by his contemporaries (Descartes, 1983, p.225) and despite his protestations then, it is treated this way even today (Alston, 1968, pp.278-302).

What was it that convinced him that what he was doing was different and self-evident? The answer is of course, that these proofs occur within the system he has set up, which yields indubitable truths. To understand this we need to see what he says in the first argument.

Once Descartes has concluded that he is a thinking thing, he then attempts to discover what this thing is. "But what then am I? A thing which thinks. What is a thing which thinks? It is a thing which doubts, understands [conceives], affirms, denies, wills, refuses, which also imagines and feels"(Descartes, 1983, p.174, the insert is an amplification from the French translation). The 'I' must recognise in its acts of thinking. Its certainty is not found in the certainty of what is seen or imagined but in the act of seeing or imagining etc.. Just as we cannot understand wax from what it appears to be, for it may change its appearance utterly, so we must know wax in its essence (Descartes, 1983, p.178). We must conceptualise wax and hold it apart from any of its external appearances in order to begin to hold its external appearances together. So with the 'I'. I abstract the 'I' away from all the things the 'I' does, and I know it more surely than I do wax, for I am that abstraction. It is not however an empty concept. It is me. Any judgement I make, no matter how dubious, is always accompanied by me making that judgement.

For if I judge that the wax is or exists from the fact that I see it, it certainly follows much more clearly that I am or that I exist myself from the fact that I see it. For it may be that what I see is not really wax, it may also be that I do not possess eyes with which to see anything; but it cannot be that when I see, or (for I no longer take account of the distinction) when I think I see, that I myself am naught (Descartes, 1983, p.178).

Descartes is anticipating Kant by pointing out that every thought or feeling or perception etc. is always accompanied by the 'I'.

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At this point we will pause briefly to bring together some of the threads we have been developing. Descartes accepted a modified hierarchical Catholic view of the universe in which there was no radical break between God and his creation. This view had its origins in Augustine's acquisition of Plato's philosophy in his theology. Although he was careful to point out the differences between Platonic and Christian thought, Augustine felt that Plato's ideas had caught some of the truth of God. Plato had held that universals such as whiteness or beauty or courage had a separate existence in a pyramidal hierarchy of immaterial forms. These perfect forms were what God contemplated as the model for the transformation of matter into the world. Augustine moved these ideas into God's mind. This concept was very important throughout scholasticism and had an important place in both Abelard and St. Thomas (Lovejoy, 1978, pp.70-80). But another idea is needed to give us the hierarchy Descartes operated with. This idea came from Aristotle. Aristotle graded beings in terms of their power of soul, that is their degree of lack of perfection. 'Everything, except God, has in it some measure of "privation."' There are, in the first place, in its generic "nature" or essence, "potentialities" which, in a given state of its existence, are not realised; and there are superior levels of being, which, by virtue of the specific degree of privation characteristic of it, it is constitutionally incapable of attaining' (Lovejoy, 1978, p.59). God, although creator, was the highest being and not apart from being. 'God is the highest being. He cannot be otherwise than the highest good and highest truth' (Sepper, 1996, p.239). This is not to say that God

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36Augustine argues that Plato was able to come some way towards the truth through understanding what God has revealed about himself in nature. He thus says of the Platonists, in Book VIII, Chapter 6 of the City of God, that 'they saw that there must be some being in which the original form resides, unchangeable, and therefore incomparable. And they rightly believed that it is there that the origin of all things is to be found, in the uncreated, which is the source of all creation' (1972, p.308). This means that with a few adjustments he can, in Book XII Chapter 26, speak of God as the creator of the internal forms which 'supplies the efficient causes, and it derives from a secret and hidden decision of a living and intelligent nature, which, being itself uncreated, is responsible for the creation not only of the natural, physical forms, but also of the souls of living creatures' (1972, p.505). So Augustine moves Plato's forms into the Christian God's mind. He does this to the extent that he repeats an argument of Plotinus's (Book X, Chapter 14) to demonstrate that the beauty of flowers is to be traced to God and that it points to a far greater beauty which exists in God, in the idea. God has of the flower (1972, p.392).
could be fully comprehended in his infinitude. We can deduce that God is infinite, but we cannot imagine his infinity. This acceptance was vital for Descartes' enterprise since it allowed him to move from one certainty to the next. But Descartes changes the emphasis so that the major point is not that God is at the highest point but that since there is a hierarchy to being, it follows that all the parts lower and higher in the hierarchy are held together by the same reason and direction. Just as this hierarchy allowed a mystic to reach to the end of the universe, so now, in Descartes' universe, reason can reach to the edge of the infinite. For now in Descartes' system, the hierarchy is understood through reason, through Descartes' system. While the Catholic hierarchy is one of being, in Descartes' system this hierarchy is not one in which we are submerged, but one which is laid out in front of us, in terms of reason. This distinction is vital. For Descartes the hierarchy is very simple, being about the closeness or distance from perfection. The traditional Catholic hierarchy is one in which each level of the hierarchy reflects all of the other parts. It is not reason but analogy that tells us about the order of the universe. Charles Taylor recounts an attempted 'refutation' of Galileo's discovery of the moons of Jupiter.

There are seven windows given to animals in the domicile of the head, through which the air is admitted to the tabernacle of the body, to enlighten, to warm and to nourish it. What are these parts of the microcosmos? Two nostrils, two eyes, two ears, and a mouth. So in the heavens as in a macrocosmos, there are two favorable stars, two unpropitious, two luminaries, and Mercury undecided and indifferent. From this and from many other similarities in nature, such as the seven metals, etc., which it were tedious to enumerate, we gather that the number of planets is necessarily seven (Taylor, 1977, p.4).

But not only does Descartes deviate from what now appears to be an irrational view of the universe and God's relationship to it, he also deviates from views that are still being held today. Margaret J. Osler points out that while Descartes' system is dependent on God, it does not fit either of the traditional ways of understanding the relationship between God and his physical laws (Osler, 1985, p.351). These two
traditional ways had emphasised either God's will and ability to change creation as he sees fit, or this intellect which makes his laws eternal (Osler, 1985, p.350).

Descartes, however, argued that God created this world as he chose, but once this world was created the unity of his will and intellect guarantee that God's laws are, for us, necessary and that we may have 'a priori, demonstrative knowledge of the real nature of things' (Osler, 1985, p.359). Further, while our human frailties make us need empirical experiment to know how eternal laws apply, once this is known 'Descartes believed that the whole body of science - the phenomena and the mechanical explanation - can be demonstrated from first principles' (Osler, 1985, p.359). Ideally, experiment would be unnecessary.

The purpose of Descartes' Meditations was to level the world as it was understood, but not so that what was could be swept away, but so that it could be rebuilt on rational foundations. For Descartes certainties are given by the nature of the universe and by the nature of humanity, held together and related to each other in the universe God created. We have just seen the order of the universe, but what of humanity? As we have seen, we are things which think. Descartes defines himself as a thing which carries out a number of mental functions but is not any particular instance of these functions. Now this seems to be leading to a type of panpsychism, for if what I am in essence is the capacity to function mentally, divorced from any actual instances of these functionings, and the soul is immaterial and therefore has no spatial dimensions, how am I to distinguish between myself and anyone else's essence? But he is not quite saying this. What sets my essence apart from everyone else's is that it is mine. I accompany every one of my acts. So it is the body and my unabstracted acts which keep my soul from melting into everyone else's.

Everyone however also shares in the same capacity to approach the world

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D. M. Armstrong (1969, p.28), argues that since spiritual substances have no spatial dimensions, then you cannot distinguish any such substances that have the same history, and hence the idea of non-spatial spiritual substances is logically faulty since there is the logical possibility of souls with the same history. But Armstrong here ignores the organic nature of souls which all do have separate histories since until death they are always attached to the body they are born with. But even if we
clearly and without prejudice for our essence is beyond our personal experience. Our individuality follows after our universality. At the core of everyone is the same essence tied to a particular body. Bodies may have failings, but the universality of the abstracted 'I' is shared by both Plato and Thrasyamachus, Descartes and Gassendi, a genius and an idiot. Hence, once we have given up all of what separates us from everyone else through the process of doubt, and we are simply left with our ability to doubt and think, then everyone must come to the same conclusion, unless our bodies prevent us from coming to any conclusion.

We may then ask, once my existence as a thinking thing has been established, where can we go from here? We have no way of knowing the truth of our mental world, only that it shows that I truly exist. But what, asks Descartes, led me to doubt the simple truths of mathematics? It was not anything in the ideas themselves, rather it was the possibility 'that perhaps God might have endowed me with such a nature that I may have been deceived even concerning things which seemed to me most manifest' (Descartes, 1983, p.180). God may even make us err if he wished and there would be nothing we could do to know this. But is there a God who could do this? As Descartes says, at this point he does not know whether there is a God at all, let alone one who deceives so this problem should be looked into to remove a 'very slight, and so to speak metaphysical' (Descartes, 1983, p.181) cause of doubt.

could show that two souls shared the same history, this does not count as a logical contradiction. At best it shows a contingent awkwardness, but not that such a thing as a soul could not exist. Armstrong then goes on to argue that spiritual substances could not be distinguished by the bodies they were attached to because there might be one spiritual substance identically attached to two or more bodies. But this is simply a logical possibility. On Descartes' account each body has but one soul, the one they are born with. We could turn the tables on Armstrong here by asking why no two physical objects could have the same history. The answer is obvious. Two physical objects, which had the same history, would be the same physical object since they would both have to share the same spatio-temporal coordinates. So it is with spiritual substances. Any two that did share the same history would be the same substance. Souls have different histories because they are attached to different bodies. Any two that did share the same history would be the same substance. Any that were not embodied and had the same history we could gladly acknowledge were the same, and the problem vanishes.
Descartes argues that he is not responsible for many of the feelings and thoughts he has. He cannot will the feeling of heat, and so must conclude that it is produced by an external thing (Descartes, 1983, p.184). In the mode of thought which gives us images (not necessarily visual) of things, such as God or man or a chimera, some are imagined while others are impressed upon us. Now, argues Descartes, the idea of a stone or of heat can exist in us from a 'cause which possesses within it at least as much reality as that which I conceive to exist in the heat or the stone' (Descartes, 1983, p.184). So even if I am deceived about the reality of the heat or stone, whatever deceives me must have at least as much 'heatly' or 'stonely' reality as the heat and stone I do perceive. Now the great majority of corporeal things and their qualities are not clearly and distinctly understood at all and 'I do not recognise in them anything so great or as excellent that they might not have possibly proceeded from myself' (Descartes, 1983, p.186). Those corporeal things which I do have clear and distinct ideas of, may all be derived from my own knowledge since I am a thinking thing, hence all such ideas 'might be contained in me eminently' (Descartes, 1983, p.187). This leaves us with the idea of God, and, very like Kant's deduction that space and time could not be derived from experience, and so must be given to experience, Descartes argues that the idea of God could not be derived from ourselves or our experience and therefore must be given to us by God.

Now with the idea of God, if we have this idea, whatever produces it must be as real as the idea of God, and therefore God must exist since the idea of God includes perfection, and there can be no higher. If we have the idea of a perfect God, then a being at least that real and powerful and perfect must exist to produce it, and if we call this being God, then God exists. This argument only works however if we cannot derive God from our other experiences or from ourselves. Descartes therefore spends a great deal of time in demonstrating that this cannot be the case.
Gaukroger is very useful here in adding to our knowledge of what the argument is doing. At the point we had reached following Descartes, Gaukroger breaks up the argument and imagines that what follows is in fact a separate argument for God's existence. He argues that in it Descartes puts forward the idea that since 'causation is instantaneous, and that everything requires a cause' (Gaukroger, 1997, p.191), and since the only being which can be responsible for my being at any instant and at every instant is God, God must exist. But Descartes does not say that this is a new argument for God's existence. Rather, it is designed to answer the question 'whether I, who have this idea, [of God, placed in me] can exist if no such being exists' (Descartes, 1983, p.190). In other words it is intended to deepen the point that Descartes has just made. Firstly he has shown that God is responsible for the idea of God in me, and now he will show that God is responsible for there being a me in which to have the idea of God. Descartes is demonstrating our complete dependence on God. It shows that the idea of God within us comes from a source which sustains us, and that while I exist I know that God exists. It ties my existence to God's and hence ties my experiences of my existence to God's existence.

This in fact makes more sense of Gaukroger's general argument than his own interpretation does. Gaukroger is arguing that the purpose of the ontological argument was never to establish the existence of God but rather to establish something about God's nature. Gaukroger begins uncontroversially by arguing that Spinoza's use of the ontological argument is not intended to show that God exists but rather to show that the logic of the argument leads you to the conclusion that 'God is identical with all that exists' (1997, p.187). Gaukroger then moves to the more radical claim that the ontological argument in Anselm was not an attempt to prove God's existence. He argues that for Anselm the argument was not directed against the famous Biblical fool who denied God's existence, since there were no atheists worth dealing with at the time, but rather was intended to show that only a fool would deny the truth of Anselm's argument (Gaukroger, 1997, p.188). The real aim of the
ontological argument as it is found in the *Proslogion* is to convince peoples of
different faiths, most particularly Jews and Muslims, that the Christian conception of
God was correct. This is most clearly seen in the *Monologian* in which 'The bulk of
the argument, about two-thirds of it, is concerned to establish the doctrine of the
Trinity on the basis of the understanding of God's nature arrived at in the earlier
chapters' (Gaukroger, 1997, p.190).

Having established this he then moves on to argue that the purpose of the
ontological argument in Descartes is to demonstrate the transcendence of God.

Renaissance naturalism, had undermined the sharp line that medieval
philosophy and theology had tried to draw between the natural and the
supernatural, encouraging a picture of nature as an essentially active
realm, containing many hidden or 'occult' powers which could be tapped
and exploited, as well as a conception of God as part of nature, as
infused in nature, and not as something separate from his creation
(Gaukroger, 1997, p.192).

This led to many unorthodox views and was also inimical to the mechanical
philosophy Descartes and Mersenne were trying to develop. So what was needed
was not to show the existence of God, but rather to show the existence of a
transcendent God. A transcendent God allows for there to be a clear distinction
between the natural and the supernatural. So an argument was needed which was
'-independent of faith' (Gaukroger, 1997, p.193) and, based purely on reason could
show that God must be transcendent. Our dependence on God for the idea of God
does not indicate a prior acceptance of God by faith. For Descartes, the discovery of
God is part of the proof of God. God is prior to the proof, but the proof does not
require us to accept or posit this. For Descartes the argument works because God is
there, if he were not, he could not be demonstrated by this argument.
If this is the case then Descartes’ use of the ontological argument deepens the process already begun in the two parts of his proof of God’s existence which showed that we are dependent on God for the idea of God and that we are dependent on God for our existence, in that this third part shows that God is completely independent of us. Our relationship to God is one of complete dependence and the relationship of him to us is one of complete independence.

To return to Descartes’ argument we see not a second argument for God’s existence, but rather an argument designed to show that God’s existence is necessary to our own. Gaukroger reduces Descartes’ position to a simple argument about causes because he believes that it is a separate argument for the existence of God, but if it is the continuation of the consideration of our dependence on God then the argument cannot be so simple. It is no surprise that we find this within an argument for God’s existence, for Descartes’ purpose in showing that God exists is to allow us to know that knowledge is possible and that this knowledge is only possible within God’s rational universe. Scientific knowledge is not a matter of contingency, but of necessity. The existence of God does not stand in the way of science but opens the possibility for a universal science. Hence as we come to see the way that we rely on God for our existence we come to know more of the nature of our existence and of God’s. Descartes argues that God is infinite and perfect in a positive, not a negative way. He is not infinite simply as a negation of the finite, nor is he perfect as a negation of our imperfections. We only have the concepts finite and imperfect, once we have the ideas of the infinite and the perfect.

I see that there is manifestly more reality in infinite substance than in finite, and therefore in some way I have in me the notion of the infinite earlier than that of the finite -- to wit, the notion of God before that of myself. For how would it be possible that I should know that I doubt and desire, that is to say, that something is lacking to me, and that I am not quite perfect, unless I had within me some idea of a Being more perfect than myself, in comparison with whom I should recognise the deficiencies of my nature (Descartes, 1983, p.188)?
Whereas if 'I myself [were] the author of my being, I should doubt nothing and I should desire nothing, and finally no perfection would be lacking to me' (Descartes, 1983, p. 190). But I am not complete, and nothing I know of gives me a positive sense of the ultimate, and since I cannot derive it from myself or my experience, then there must be a God who has given me the idea.\textsuperscript{38}

We are certainly aware of our limitations in relation to other spatio-temporal beings, but this is not enough to make us aware that we are not perfect. This sense of imperfection is then not one in terms of our individual imperfections like having a bad memory or a short temper. If we were dealing with the negation of individual imperfection then I should conclude that I was perfect, but instead I maintain my sense of individual limitation while I know positive perfection. It is a question of the type of being that we are - we are embodied, spatio-temporal beings, limited in knowledge and power. But the idea we have is of an unlimited being. This idea is not just a cold concept but an intimate awareness of this perfection, as intimate as that we have when we feel heat penetrate our bodies or the cold hardness of a stone. The thing that gives us this idea must be as real to us as the stone or as heat.\textsuperscript{39}

An even more suggestive type of intimacy is that we discover this reality through discovering ourselves, and in just as intimate a way as in the \textit{cogitans}. The proof of God's existence and of my being something are for Descartes linked.

From the sole fact that God created me it is most probable that in some way he has placed his image and similitude upon me, and that I perceive this similitude (in which the idea of God is contained) by means of the same

\textsuperscript{38}One could argue, using Lacan, that we derive the idea of perfection from the unified other we want to be and which we internalise in the mirror phase, and that this is reinforced during the Oedipus complex by the omnipotent power of the father and by the realisation of our own impotence and imperfection. But this realisation does not eliminate the psychic machinery which produced Descartes' sense of certainty. The question for us then is what has become God for us in the post-Cartesian West?

\textsuperscript{39}This does not undermine God's transcendence since \textit{God} is not found in the world. Rather the idea of God is deeply embedded in us and for the purpose of pointing us towards the transcendent God.
faculty by which I perceive myself - that is to say, when I reflect in myself I not only know that I am something, . . . incomplete and dependent on another, which incessantly aspires after something which is better and greater than myself, but I also know that He on whom I depend possesses in Himself all the great things towards which I aspire . . . the whole strength of the argument which I have made use of to prove the existence of God consists in this, that I recognise that it is not possible that my nature should be what it is and indeed that I should have in myself the idea of a God, if God did not veritably exist" (Descartes, 1983, p.193).

So Descartes has now established our complete dependence on God. In order for me both to exist and to know, there must be a God. Now since God is perfect and not a deceiver, Descartes can reconstruct the rest of experience and reason as correct. So from the fact that he can reason his own existence and that of God's, he shows that if we know anything at all then we must first know ourselves, but knowing ourselves immediately brings us to know God, and because God exists we can know other things. An atheist can know that "three angles of a triangle are equal to two right angles" (Descartes, 1983, p.238, italics his), but be unable to be sure that his judgement is correct. He 'can never be safe from it [doubt] unless he first recognises the existence of a God' (Descartes, 1983, p.239). His world may be the same but cannot be founded on certainty, merely on the appearance of certainty.

The link between my certainty over my existence, and over God's is more closely linked than this however. Descartes supplies a second argument for the existence of God. He agrees with Kant who will say that existence is not a predicate. Descartes will however wish to make one notable exception. Essence and existence are separable, except in the case of God. The concept of God necessarily involves that of existence. If God exists he necessarily exists. God's essence involves existence. Now 'that which we clearly and distinctly understand to belong to the true and immutable nature of anything, its essence, or form, can truly be affirmed of that thing' (Descartes, 1983, p.228). Now since it is clearly and distinctly understood that the very idea of God necessarily involves the idea of his existence, then by understanding that this idea is true, that is, clear and distinct, then God must exist.
This argument has always been attacked as the ontological argument (understood in the traditional sense as being an argument for the existence of God based on the idea of God) but it is important that we understand the difference between Descartes' position and the ontological argument as Anselm first conceived it. The ontological argument as Anselm put it, was that there is a being 'than which nothing greater can be conceived' (1968, p.4). If we merely have the idea of such a being, we have not actually obtained one, for one that truly existed would be greater, therefore there must be such a being, and such a being we call God. But Descartes agrees with his objector, who quotes Aquinas against the ontological argument, that 'because a word implies something, that is no reason for this being true' (Descartes, 1983, p.228). However the arguments certainly seem similar. They both claim to prove God's existence simply from the definition of God. The difference is that in Anselm there need not be a being greater than which no other can be conceived, for beings and conceptions are not necessarily linked. But if, as in the case of Descartes, we start with a concept of God which is clear and distinct, and we accept that whatever is known clearly and distinctly is true, then it follows that it is true. That is, it is not simply the definition of God which makes God exist, it is that the definition of God is known to be true with certainty and since this is the essence of God then God must exist.

Without going into a discussion about the problems this argument has as Descartes presents it, it does say interesting things about Descartes. Descartes expects everyone who examines the idea of God to accept that existence is a part of His essence. Why does he suppose this? Because God's perfection and necessity are linked to his (Descartes') imperfection and contingency. Descartes knows himself in his incompleteness and dependence, and God in whom he depends via the same faculty and in the same action. Descartes' fears and incapacities are met simultaneously in a perfect God. It is important to note here that 'Descartes
constantly reiterates that the knowledge of God is not reached through faith, but that it is, reason which leads us to it' (Schouls, 1972, p.31). He expresses it like this: 'the certainty and truth of all knowledge depends alone on the knowledge of the true God, in so much that, before I knew him I could not have a perfect knowledge of any other thing' (Schouls, 1972, p.31. quoting Descartes).

This intellectual knowledge of God, as perfect and exact as knowing that 1+1=2, and as certain as knowing the abstracted I, is for Descartes, the way to objectivity, control and intellectual joy. To know God exhausts itself in understanding Him intellectually. To know the self is to abstract from your self. The original title of the *Discourse on Method* was 'The project of Universal Science which can elevate our nature to its highest degree of Perfection'. To Descartes the way to perfection is rational: the abstracted 'I' meeting the geometrical God. Together they define the universe for us. Descartes as the I which represents all 'I's, in their abstract essence is at the centre of the universe and God 'surrounds' it. Each individual is at the centre of the universe since they have equal access to the essential meaning of the universe through the natural light of reason. All else in the universe is in between and defined in relation to them. What sets these two points in place? It is their demonstrability. More than this, they have been seen to be true. It is not possible to doubt unless we are also prepared to stop thinking, as it is the structure of thought which means that these things are seen. So to deny them is to deny thought. They have been shown to be sure by reason. The universe is now a reasonable place, mapped between a point and a perfect sphere that defines a geometry of reality, knowledge and behaviour.

Now what are we to make of Gaukroger's position that Descartes' intention is not to prove God's existence but to show something about God's existence? From what Descartes says in the *Replies*, his objection to his critic is not that he was not trying to prove God's existence, but rather that the proof is not in the form of the ontological
argument (1983, pp.227-231). None the less there is an obvious emphasis in what Descartes says to show that the independence and eternity of God are vital parts of the point Descartes is trying to make (1983, p.230). The key issue here that distinguishes between the ontological argument and what Descartes is doing is that it occurs within Descartes' system. It is not an argument that depends on the definition of words but of the nature of essences, and we have already discovered the essence of God in our discovery of the essence of ourselves, and the origins of our ideas. Before Descartes can produce this last argument he must already have found the essence of God, and this idea cannot be found before everything has been stripped away by the method of doubt. In other words the argument only works as we enter the rational universe, and then it works as part of the system and not independently as the ontological argument or any other kind of argument.

We cannot really understand what Descartes is doing in this argument unless we understand the larger religious context he was writing in. This we can find by looking at Descartes' friend, Marin Mersenne. Mersenne most often turns up in histories of philosophy as being a correspondent and friend of Galileo, Hobbes, Gassendi, Descartes, Huygens and Toricelli (Buckley, 1987, p.56). In this correspondence he was not simply the receiver of others ideas and a returner of pleasantries about them. Mersenne was well acquainted with the thought of his day and 'was expert in much of it and contributed to science' (Buckley, 1987, p.57). He also composed weighty and influential tomes of philosophy and theology. One of the people he had a strong influence upon was Descartes.

Mersenne was determined to defend the faith against forms of thought and belief which threatened belief in God. These were not direct atheist attacks, but rather systems of thought which in Mersenne's view would lead to atheism. In his book, *L'Impiete des Deistes Athees, et Libertins de ce temps*, he attacks the ideas of the
sceptic Pierre Charron, the neo-Averroist astrologer Geronimo Gardano and the rationalist Giordano Bruno.

Charron rejected the idea that reason could produce certainty. The best it could provide was probability. 'Faith alone gave certainty for Charron; reason gave verisimilitude and the unbridled use of reason lead to atheism' (Buckley, 1987, p.58). Charron then preferred the path of negative theology.

Cardano dealt with the divide between reason and faith differently. He held that there are two types of truth, those which philosophy could establish and those which came from revelation. However, for Mersenne this lead to contradictions which led to the denial of theological truth. On the philosophical side of his divide, Cardano was a mathematician and astrologer. His astrology, Mersenne judged led to determinism, which led to errors 'against the faith or against reason, or against sound morality' (Buckley, 1987, p.59, quoting Mersenne).

Bruno was a thorough-going rationalist, who, in his mathematics tried to demonstrate 'that at their depth the circular line and the straight line, the point and the line, the surface and the three-dimensional body are nothing but the same thing' (Buckley, 1987, p.59). This reduction is also carried out in theology where God is made an 'immanent principle of the universe' (Buckley, 1987, p.59) bound to it in such a way that he is only infinite in attachment to the finite, and omnipotent when in touch with all objects.

What binds all of these thinkers together is the idea that there is a breach between faith and reason and that you must either come down on one side or the other, or else accept that the two must somehow sit side by side without properly communicating. For Mersenne to make such choices is to start towards atheism. William Derham placed Mersenne in the tradition of Boyle and Newton. Buckley
agrees, saying that, 'this is true not only in the obvious way that all three connected a
natural theology with scientific mechanics' but more profoundly in that all three used a
method which could build complex wholes out of their component units and resolve
the intelligibility of these molar realities by a reduction to their elements' (1987, p.61).
Mersenne's aim is to bring revelation and reason together, building both rationally.
He begins with the human body and then the world. This introduces morality, which
introduces God which leads to Catholicism. Once this is done the parts may be
analysed and attacks on Catholicism can be dealt with.

From this, Descartes learned the importance of the idea of the transcendent of God
(Gaukroger, 1997, p.192). This has far wider implications than just understanding
Descartes' intention in his argument for God. Such a God is independent of the
world and not able to be subsumed under either nature or culture. God acts as that
which is truly independent of the world and culture and so can provide an
uncompromised and universal foundation for understanding both. But God is not
acceptable within modernity as a way of explanation. Despite their intentions
Descartes and Mersenne teach this to modernity. If God is truly transcendent then
everything within the world should be capable of explanation within the world. And
here we have the tension which Descartes leaves for modernity. On the one hand
God is transcendent and so the world is capable of completely mechanistic
description, but on the other hand God is needed in order to be able to have a
guarantee of certainty and a sense of the universality of truth and of the validity of
reason. Descartes is keen to demonstrate the independence of God from the world,
but he can only do this on the basis of his prior demonstration that we are dependent
on God for any kind of knowledge at all. So in Descartes' universe Cogito ergo sum
cannot take us any further without God and it is our God given nature to require the
existence of God before we can think the cogito. In other words the conclusion that
God is transcendent leads away from God as an explanation within the world, but
without God we cannot get to the point of concluding that there is a clear break
between the supernatural and the world and so we cannot guarantee that a scientific view of the world will be correct. We must ensure that the world is ruled by physical law and not by unpredictable spiritual or magical creatures and forces. But we cannot have a rational universe without God at this point in the development of modernity, as Descartes' introduction of the rational scientific universe, depends on God's existence. So on the one side we may have certainty and reason through acknowledging our dependence on God, while on the other we may have universality and science by acknowledging that God is independent of the world and hence that in all things other than pure existence, the world is independent of God. We may reject God and preserve the world for science, but lose the ability to know that science is true, or we may accept God, and always have the foundations of science outside of the possibility of explanation within the world.

The tension between Descartes' dependence on God for certainty and reason, and the independence of the world from God, provoke different responses within modernity. For example, our dependence on God for certainty and reason may lead pure reason to become metaphysics and defines science in terms of itself. Certainty becomes a matter of logic or intuitive reason and is used to define the world. Elements of this kind of response are found in the Rationalism of Spinoza, Leibniz, and Wolff and the Idealism of Fichte and Hegel. Another response more on the side of the independence of the world and the universality of science sees that science cannot seek for intuitive certainty and so must seek certainty within itself. It must also define reason in terms of itself. This can lead to the kind of instrumental reason which, according to Weber and the Frankfort school, has come to dominate the idea and practice of reason in the West. A third response which lies between the gap between the other two could be identified with some forms of irrationalists and Romantics. These latter thinkers emphasise experience, the personal, and meaning rather than certainty or universality. In contemporary society where metaphysics has

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This can hardly be avoided since God himself could not be independent of his existence.
been largely rejected in the face of instrumental reason, this last response becomes
the primary popular alternative to scientific reductionism. Large sections of post-
modernism operate as the theoretical interpreters of this tradition, embracing
Kierkegaard, Nietzsche, and unknowingly reintroducing many of Schelling's ideas
(see Bowie, 1993, pp. 81-114, and Snow, 1996), whilst playing off the rejected
metaphysics of Hegel.

For Descartes the subjective and objective are united by God, but for much of
modernity they stand opposed: subjective certainty versus objective certainty; reason
versus external demonstration. Attempts to eliminate this tension by reducing the
subjective to the objective by the positivists, or by reducing the objective to the
subjective by the romantics, or to unify them by the idealists, all fail since the
conceptual boundaries that define the subjective and objective with which they work,
(that is Descartes') require each other to be independent and are kept separate by
their different relationships to God. They can neither be reduced to each other nor
completely unified in each other. They are both united and separated in the one
universe through God. To bring out the practical meaning of this distinction we may
remember that science needs scientists. It requires creative subjective intellects. As
Michael Polanyi says,

For, as human beings, we must inevitably see the universe from a centre lying
within ourselves and speak about it in terms of a human language shaped by the
exigencies of human intercourse. Any attempt rigorously to eliminate our human
perspective from our picture of the world must lead to absurdity (1973, p. 3).

Science can never simply be mathematics, it must be directed and purposeful. We
can only have the objective given the subjective desire to find it. So this is a tension
which will not go away as long as we wish to remain within both a rational and a
scientific universe. Once we give up one then we also have to give up the other. If
God no longer founds knowledge, then the attempt will be made to find a foundation
on one or the other side of the subjective objective divide, but for Descartes, this hope is forlorn and both sides will be lost. The deeper you burrow for a foundation, the less sense the other side of the divide makes.

For Descartes, the natural light of reason is necessary to any sound thinking process otherwise we could not know when we were correct. This is an experience open to everyone. If someone does not know how to access it a simple method can be learned. To obtain the universal all one had to do was to find the essence of a thing. To find the scientific solution to something you had to strip things back to their basic clear and distinct natures. However with the rejection of the deductive method and the natural light of reason the subjective has come to mean the merely personal. The end of the rational half of the reason/science divide means that the objective is to be found not in any individual except in so far as they are embodiments (scientists) of the embodiment (science) of objectivity: that is, one part of this amorphous thing called science. If science is objective, then everything else is subjective and up for grabs. One could speculate that the rejection of the essential subjective character of objective judgement can lead to the uncritical popular acceptance of the mysterious and objective nature of science, and the mysterious and subjective nature of the rest of the world. The rejection of those elements in Descartes which could not be accounted for scientifically and were thus irrational has lead to the isolation of science and the irrationalisation of popular culture.

Now these tensions open up the 'ghost' of Descartes as that which offers the guarantee to modernity spoken of in Chapter Six. As God is rejected as the guarantee of knowledge, then the assurance that Descartes had declared the universe rational and founded takes its place.
Chapter Eight: Body and Soul.

The divide we found in the last chapter helps us to see how we can be in an era which considers itself anti-Cartesian in its rejection of intuition and God, and yet still be within Descartes' universe in a commitment to obtaining and trusting scientific knowledge. With the world uncomfortably divided between subjective certainty and scientific demonstrability, the status of the self and its relation to the world moves to centre stage. Bordo's insight into the post-Cartesian era we live in as if it were an anti-Cartesian era reveals some paradoxical results. This is wonderfully clear in the case of the dominant post-Russellian, scientific, anglo-saxon attitude to the mind-body problem.

Before we examine this, however, we should look at Descartes' attitude to knowledge in comparison to other popular approaches. There are (among many others) three important types of question which arise from any particular approach to knowledge. The first proceeds from a theory of knowledge and asks what kind of beings we must be in order for us to have this kind of knowledge. For the purposes of this argument Locke's empiricism falls into this broad category. Locke begins by assuming that we only know through experience and through thinking about what we get from experience. He then tries to discover how this works. Kant may also be said to broadly belong to this group. He, like Locke, wants to establish the primacy of scientific knowledge and so tries to show what kind of world we live in, in order to establish this. He is seeking to show the conditions of possibility that must attain in order to know as we do. The second group either assumes or seeks to discover what kind of beings we are and then to determine what kind of knowledge we can have. This is in line with idealist, holist accounts like those of Hegel. For the purposes of brevity we will greatly simplify Hegel's very complex and subtle philosophy, and say that he attempts to discover the nature of the universe and of human culture and mind and from this to discover what we are capable of knowing.
indeed, what knowledge can be in such a universe. The first group is more in line with scientifically oriented theories and the second with more rationalist types of philosophy. The third approach, Descartes', differs from both of them.

Even though his quest is epistemological, Descartes does not attempt to privilege either epistemology or ontology. Descartes must discover their natures in the one movement since what we can know and the nature of the world are both given by the universe God provides. Hence the discovery of one implies the nature of the other. But before we can say anything about the nature of either, one must discover the way to secure knowledge otherwise we will not be able to proceed. But in the discovery of a secure point of knowledge, 'cogito ergo sum', we immediately move from here to discover that the cogito is the cogitans. I think therefore I am. What am I? A thinking thing. Given this starting point, both epistemology and ontology are discovered together. Unlike the other two approaches which establish either ontology and then epistemology or visa versa in a two step move, the discovery of knowledge and being in Descartes occurs in a single step. Descartes cannot then proceed with any prior commitments to knowledge claims. How then does Descartes come to his conclusions?

In Descartes we cannot separate the process of knowing how we can know, from knowing if we can know and what we know. In discovering the foundations of secure knowledge we also discover what we cannot know with certainty\textsuperscript{41}. It does not then follow that once the foundations of knowledge have been found that everything is equally capable of being made certain. Descartes knew that some sorts of knowledge are much more secure then others. Hence it is that Descartes may discover necessary gaps in our knowledge. Descartes then takes things as he finds

\textsuperscript{41}For instance, since body and mind are intertwined so intimately, while it is possible to say where our ideas come from in any particular occasion we cannot make a blanket definition beforehand that will tell us where each idea must have its origins before we have examined it. So we cannot come up with a clear way of referring to ideas with a view to their origin as we cannot tell what the origin of each is without examining each one as it appears. So the concept of the idea must remain fuzzy.
them as he searches for answers. He does not seek to impose a smooth and easy frame on difficult and complex situations. We should not then be surprised if what we find in Descartes' account of our ontological and epistemological natures defies a simple dualism or an easy passport to knowledge.

In his correspondence with Princess Elizabeth, Descartes again stressed that arduous clear and distinct thought, of the kind that secures the foundations of science, can and should occupy only a few hours a year. It is through pure intellect, transcending the intrusion of the body, that we grasp the separateness of mind and body on which pure science is founded (Lloyd, 1984, p.47).

At several points in the argument we have touched on the relationship between body and mind, however, we now need to look at the mind-body problem in Descartes in detail. I believe that for various historical and conceptual reasons Descartes' position has been misunderstood. A good way to see this is in two well known attacks on mind-body dualism carried out by such diverse philosophers as D. M. Armstrong (1969) and Gilbert Ryle (1973). They are good post-Cartesians. They demand clarity and distinctness to the extent that clarity and distinctness are seen to be much too murky to work with as criteria. And as with so much else in Descartes, they attack Descartes' doctrines but maintain a simplified version of his spirit. This simplification means firstly that they misunderstand Descartes, and secondly that they fail to examine many of their own Cartesian assumptions and so fall prey to the kind of analysis they hang their straw Descartes on. I will not be concerned here to attack Armstrong or Ryle's positive arguments except in passing. My concern will be to show two things: the first is that Descartes' understanding of the mind body relation is much more complex than is usually understood; the second is to show that this problem was never all that much of a problem for Descartes himself. It is a problem that arises after Descartes and his original intuitions were becoming confused with a dogmatic understanding of his thought.
Although the mind-body problem existed in various forms prior to Descartes, the modern form of the problem has its starting point with him. Thus Campbell in his useful survey of the issues is able to set up the following inconsistent tetrad which acts as a guide to the problems and strategies used in the ongoing debate.

'(1) The human body is a material thing.
(1) The human mind is a spiritual thing.
(2) Mind and body interact.
(3) Spirit and matter do not interact'. (1984, p.14)

Over the centuries philosophers have denied one or more of these propositions in order to try to account for the extraordinary and peculiar nature of the relationship between mind and body. Campbell's survey of the issues runs to 139 pages with an additional 24 page bibliography. To go into the details of the debate would take us into another thesis. Campbell's approach is however very useful to us. By looking at the problem in the terms Campbell uses to boil down the debate to these four propositions we can more easily compare what is happening between Descartes and two philosophers dealing with the same problem 300 years later.

Descartes first argues that the mind is a spiritual thing. He is then able to argue that the body is a material thing. Having accepted propositions 1 and 2, if Descartes is to argue for proposition 3 he must deny proposition 4. So Descartes would argue that if he has shown that proposition 1 and 2 are true then he would need an extraordinary reason to suppose that 3 is not true. Descartes must then be able to show that spirit and matter can interact. If however, you accept the denial of 4 there seem to be difficulties in knowing how 3 is possible. How can spirit and matter interact?
The usual way to understand Descartes' picture of the relationship between soul and body is that the soul is active and alive, but non-spatial and insubstantial, while the body is an organic machine, material and extended. The soul is a thinking thing that does all the thinking for, and directing of the body. The two parts are ontologically distinct, and joined at the pineal gland by God. This leads opponents of Descartes to ask just how the immaterial mind can move the material body. This problem is very well expressed by J. F. West in *The Great Intellectual Revolution* (1965). West points out that given the physics of the time, which recognised that motion is conserved in both quantity and direction, how can the mind push the 'vital spirits' in the brain in order to give the body directions? Surely something substantial is needed to move matter, to make it change direction. 'Cartesians, in fact, were faced with the problem of explaining to the world how to hit a cricket ball with a wreath of mist instead of a bat' (West, 1965, p.57). This is the problem as Descartes' opponents have conceived it. The body is substantial and the mind a mere mist. Cartesian dualism is the ghost in the machine (Ryle, 1973, p.17). The soul\(^{42}\) is a ghost that is merely the shadow of our body. This is a grossly over-simplified, and hence inaccurate version of Descartes' theory of the mind\(^{43}\).

He rather relies on the fact that he has already demonstrated that propositions 1 and 2 are true and that the human body demonstrates rational thought and therefore that there is a strong reason to suppose that 3 is true and 4 is incorrect. But why is it thought by so many that this is unlikely? One reason is that we do not seem to need the soul. But this would not have bothered Descartes. He is not relying on a gap he would deny existed to show that a spiritual mind and material body interact. Now the

\(^{42}\)Soul and mind can be used interchangeably as indicating the spiritual part of us. However Descartes uses mind in the *Meditations* to indicate the *cogito*, while he uses soul in the *Passions*, to indicate the self as intertwined with the body. In the *Principles* however they are used synonymously. So while there is no strict distinction between mind and soul, they do have a different emphasis in some places. The main problem with using these two terms is the difference which we give to them. The mind being the more abstract and intellectual part of us while the soul is the more emotional and 'softer' part of us.

very absence of a gap may be used against Descartes. It could be argued that since there is no place where we can see the activity of a spiritual mind, then why should we suppose that it exists. We have already seen that the common understanding of Descartes is that the mind and body meet only at the pineal gland and that this is mistaken. If, however, this were really what Descartes thought then problems would immediately arise. Since this is the only place that mind and body are joined we will have to ask what is it that keeps them together. Why are they joined here and nowhere else? What makes them join along the dotted line? What third force acts as the inter-substantial glue? Further since they are only joined here we must account for the way that ideas flow from mind to brain. D. M. Armstrong argues there is a temporal, physiological problem that emerges in a basically Cartesian sort of dualism, since the soul effects the body through the brain then,

This means that there will be, as it were, a 'gap' between the state of the brain before the mental event has had its effect and the state of the brain after the mental event has had its effect . . . with the gradual advance of knowledge of the operation of the brain and nervous system, physiologists are becoming increasingly unwilling to think that there is any such gap (Armstrong, 1969, pp 32-33).

Armstrong has assumed that Descartes is a radical dualist and so that there must be a gap.

But Descartes does not hold this position. Firstly, Descartes merely says that the pineal gland is the main seat of the soul, not that it is the only place that they are joined (Descartes, 1966, p.125). Secondly, the mind receives information from the whole of the body. What makes the pineal gland the main seat is that the soul gets information from the brain first, and immediately (Descartes, 1983, p.220). In the case of a brain injury Descartes says that sensation ceases because the physical receptor of the information, the pineal gland is gone. However, even without the
pineal gland the soul is still united with the body and is still capable of moving the body (Descartes, 1970, p.242). In normal conditions the information goes from brain to mind and immediately from mind to brain. Even if the mind was spending time contemplating what it would do, this would be reflected in the activity of the pineal gland and the subsequent movements of the animal spirits. There would be no gap in the electroencephalographic read out. The gap only exists in how long information takes to get to the soul from the rest of the body. But then this gap also exists for Armstrong in a materialist brain-body relationship. It takes time for information to get from the peripheral to the central nervous system and then to the appropriate part of the brain. The information going from mind to brain is immediate. So there is no mysterious gap to be found.

This brings us to the most important reason that Descartes is so badly misunderstood. It has been supposed that matter is primary over spirit and so the task for any dualist is to connect spirit with it when we have no way of grounding spirit in matter. Spirit in fact seems superfluous. Spirit is insubstantial and cannot move matter. But for Descartes, spirit is primary and matter comes from it through God. Contrary to the popular opinion of the time, Descartes believed that God created space along with body. For most thinkers, space was something absolute. It did not need to be created, for it was nothing. God created things within an already existing universe. Hence spirit is prior not just to matter, but to the space it is in (Garber, 1992, p.136). Further, God continually recreates the world in order to sustain it, thus showing that spirit is primary. "I consider 'matter left to itself and receiving no impulse from anything else' as plainly being at rest. But it is impelled by God, conserving the same amount of motion or transference in it as he put there from the first" (Garber, 1992, p.278 quoting Descartes). God's action of sustenance and causing movement in the world is modelled on the way that the soul moves the body. 'I confess, nevertheless, that I can find no idea in my mind which represents the way in which God or an angel can move matter, which is different from the idea that
shows one the way in which I am conscious that I can move my body through my thought' (Garber, 1992, p.277 quoting Descartes). Since Descartes finds that the way that God moves an object and the way that the mind moves the body are the same we can conclude that for Descartes only if it is absurd to ask if God can move matter, is it absurd to ask how the soul can. Hence we do not need to search for how matter holds on to a soul, for even though it has no hands, it is the soul that does the holding.

It is in this context that we should examine Gilbert Ryle's famous attack on Cartesian dualism as the ghost in the machine. Ryle is not a mechanist like Armstrong, and his approach gives us another kind of misreading to contemplate. The first significant point for us to take note of is the historical analysis he gives of the development of the common idea of dualism. While Ryle's history is inadequate for a number of reasons including blaming Descartes for the category transgressions that are an almost universal feature of language, and all but ignoring the Greek influence in the mind-body division (Hampshire, 1971, pp.20-24), the problem that is most interesting for us is his historical understanding of Descartes. Ryle says that in response to Galileo's demonstration of the way that mechanics could be applied to all bodies,

Descartes found in himself two conflicting motives. As a man of scientific genius he could not but endorse the claims of mechanics, yet as a religious and moral man he could not accept, as Hobbes accepted, the discouraging rider to those claims, namely that human nature differs only in degree of complexity from clockwork. The mental could not be just a variety of the mechanical (Ryle, 1973, p.20).

This picture is a serious misrepresentation of the reasons behind Descartes' dualism. Firstly, it was not for the sake of morality or religion that Descartes demonstrates the separability of mind and body. As we have seen, it is a part of a program to found knowledge claims and clear the way for scientific advances. Secondly, as previously reported, in Chapter One, Descartes was not so easily convinced by Galileo. Descartes along with other leading French intellectuals, could not,
give complete credence to a natural philosophy which applied such a violent
process of abstraction to the complicated world of experience. For Descartes
this objection was insuperable, and he finally came to regard Galileo as a mere
phenomenalist who, lacking insight into the mechanism of the universe, had
merely been successful in isolated feats of mathematical description
(Hall, 1962, p.94).

Ryle's attitude to the 'spiritual' is clear here. The soul is 'soft' (soft is itself a material
term, and its use as a metaphor immediately indicates a value judgement rather than
an ontological analysis) and only useful for such 'wishy-washy' topics as morality and
religious faith\(^ {44}\). The world, mathematics, physics and science are material and the
soul can have nothing to do with them.

The logical distinctions that Descartes makes are not phenomenological but to do
with essences. Hence mathematics can help us to deal with the relationships
between essences or extended bodies, but a mathematical reduction of experience
was to confuse essences with the richness of lived experience, to the detriment of
this experience. The Post-Cartesian English philosophical tradition has tended to
accept that which can be expressed mathematically as that which is real, and that
this mathematical expression is more real than our experience. An analysis of matter
in terms of its elemental, sub-atomic and energy characteristics is thought to be a
more reliable description of a chair than our experience of the chair. Our senses are
subjective, while the mathematical description is true whether anyone exists to

\(^ {44}\) As Howard Robinson points out, William James' distinction between tough-minded and tender-
minded philosophers is principally a psychological one and that
the problems facing the materialist account of consciousness do not reside
principally in a temperamental resistance to his doctrines, but in the genuine
difficulty of providing a plausible materialist account of consciousness and the
subjective dimension (Robinson, 1982, p.1).

The relationship between the softness of the soul and the tender-mindedness of those who accept its
existence is not just coincidental, it is emblematic of the attitude of the Cartesian age which would
rather accept poor materialist models of the mind, because such a model has a chance to one day
succeed scientifically, rather than accept a model with far fewer problems but which appears to defy
the powers of science to demonstrate it. In the end, empiricism was to undermine the rational
science of Descartes even though this empiricism needed Descartes' rational foundation on which to
work effectively. Descartes' followers found that to do science well, they had to resort more and
more to experiments and to the mathematicisation of Galileo.
understand it or not. It is ironic then that it is in mathematics that we can find a solution to the problem posed by the relationship between a non-spatial soul and an extended body. We can construct a mathematical Cartesian solution to the mind body problem as presented by Armstrong. The possibility that there could be such a solution is unthinkable to materialist, scientistic thinkers like Armstrong because the soul cannot be measured or examined. Yet it is these very qualities that make it solvable in mathematical terms. D. M. Armstrong argues that the mind is immaterial, and hence we cannot say that the mind is inside the body (Armstrong, 1969, p.25), and thus any attempt to locate the 'I' in relation to our bodily experience reduces to bodily experience. For instance 'I am at the centre of my perceptual field', or 'I have a pain in my hand' are both meant to be bodily statements and yet clearly mental. However Armstrong points out that since the mind is not present in space, these statements which have the body as chief referent must reduce to being simply about the body (1969, p.26). Although Descartes did not suggest it, there was a mathematical solution to Armstrong’s problem which is equally available to both Armstrong and to Descartes. This solution can be found in the Cartesian coordinate system. In this system a point with no spatial dimensions may be plotted in space. The soul may therefore be located in the same place as the body and locatable 'in' it without it having any size or shape. That this solution might be acceptable to Descartes finds some support from the fact that Descartes believed that things which could be compared in terms of magnitude could be related in definite mathematical terms (Lachterman, 1989, p.179). Descartes also believed that 'the beingness of objects, what they are qua beings, coincides with their mathematical intelligibility’ (Lachterman, 1989, p.178). So, combining these ideas we find that since the body has its extended magnitude, and the soul has a plottable magnitude of zero, they can be mathematically related and coordinated together.

This leads us on to one of the most important consequences of assuming the primacy of matter in interpreting Descartes. Ryle says that it is a category mistake to
suppose that mental effects are different from physical events. Just as a cricket team's team spirit is found in each member's feelings and does not have a separate existence, so it is simply mistaken to imagine that mental effects are ontologically separate from the physical events that accompany them. From one point of view mind exists, but not from the same point of view that the brain exists. "But these expressions do not indicate two different species of existence, ... [t]hey indicate two different senses of 'exist'" (Ryle, 1973, p.24). So we experience the events of our brain as mental events, but our brain has a physical existence while our mind has merely an experiential existence. Ryle says that this category mistake is caused by Descartes' need to find a non-spatial, non-mechanical cause of thought and action to allow for free choice and hence moral action. This move was made according to Ryle because,

He and subsequent philosophers naturally but erroneously availed themselves of the following escape-route. Since mental-conduct words are not to be construed as signifying the occurrence of mechanical processes, they must be construed as signifying the occurrence of non-mechanical processes (Ryle, 1973, p.20).

But it was not so easy for Descartes to come to the idea of the cogitans. Descartes does not begin with the separation of mind and body, he must derive it logically. His argument is not to do with the non-mechanical appearance of mental events, but from their indubitability. Hence, in the 'Sixth Meditation' Descartes is able to derive the existence of the body from the nature of thought. Descartes is not basing his philosophy on anything as weak as the difference between the experience of thought and of moving an arm. It is Ryle's assumption of material primacy which leads him to suppose that the idea of the ontologically real existence of mind can only be derived from the appearance of difference, which is based on the need to find such a difference in order to preserve the non-mechanical nature of that appearance as a reality. It has often been mistakenly assumed by his critics that Descartes believes
that the mind can have access to knowledge simply because of its transcendental nature. But this is not the case. The mind does not simply sit on the top of the confusion of the body and purely observe, it is deeply embodied and requires method in order for the mind to find its transcendence and be able to see the truth clearly and distinctly in a predictable and reliable way.

The relationship between mind and body in Descartes is much more complicated than is normally recognised. While Descartes wishes to give an account of the body such that involuntary movements are seen to be as mechanical as the workings of a clock (Hatfield, 1995, p.340), and Descartes also believes that 'the whole nature of the mind consists in thinking, while the whole nature of the body consists in being an extended thing' (Descartes, 1983, p.281) and so the brain cannot think, this does not mean that it plays no role in thought. In response to the problems posed by our inability to think while a baby or in a stupor, Descartes says that we do think in these occasions, but that our brains are in no condition 'to receive these residual impressions' (1983, p.280). But if the mind could remember particulars by itself, that is the details of the world, we would still remember what we thought in such states. Hence it would appear that the mind must use the brain in order for it to remember the world of particulars.

The mind certainly uses the brain in the case of imagining. For Descartes, the unextended mind cannot receive a representation of an extended thing. The extended brain however can imagine such a thing (Descartes, 1983, p.282), and so the mind's thinking of the body, joins with the brain's imagination of a body to give us our experience both of our body and of any body (Descartes, 1983, pp.292-293). Since we can understand a chiliaon as a thousand sided figure but not imagine such a figure, and we need an effort to imagine a pentagon, but not to understand one, it follows that the imagination is not part of pure mental activity (Descartes, 1983,
pp.209-210). It then follows that it is the mind using the body that makes imagination possible.

I easily conceive that if some body exists with which my mind is conjoined and united in such a way that it can apply itself to consider it when it pleases, it may be that by this means it can imagine corporeal objects; ... pure intellect turns in itself, and consider some of the ideas which it possesses in itself, while in imagining it turns towards the body, and there beholds in it something conformable to the idea which it has either conceived of itself or perceived by the senses (Descartes, 1983, p.210).

For Descartes, 'The world itself contains no colours, odors etc. ... but only spatially extended body. The secondary qualities ... are ... a feature of the interactions of our sense organs, cognitive apparatuses etc., with the external world' (Gaukroger, 1995b, p.111). Now the imagination, as opposed to pure intellect, is needed to deal with the world. The mind in itself cannot take in the matter of the world even as representations, it only deals with the general, indeterminate principles of pure thought. It is perhaps no coincidence that the development of algebra was Descartes' major scientific contribution (Gaukroger, 1995b, p.91) and very important in his metaphysics. Algebra allows for the pure intellect to deal with the indeterminate while also allowing for the application to the real world symbolically through geometry, by the imagination (Gaukroger, 1995b, p.110).

So just as we experience the sensations of the body, as bodily, they also count as thought. It is the same with memory and the imagination of extension45. They are both bodily and of thought. 'By the word thought I understand all that of which we are conscious as operating in us. And that is why not alone understanding, willing imagining, but also feeling, are here the same thing as thought' (Descartes, 1983.

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45There is also a purely intellectual memory, but its nature is curious, focussing on universals and not particulars (Gaukroger, 1995a, p.392). This is because the mind without the body receives no information from the spatial world, and objects in space are individuated by being extended (Lennon, 1994, p.13). Hence the disembodied mind only thinks in universal terms. Thus, the pure intellectual memory is used by the disembodied mind for the contemplation of the universal after it has been freed by death,
But such thought is not pure. 'For all these sensations of hunger, thirst, pain, etc. are in truth none other than certain confused modes of thought which are produced by the union and apparent intermingling of mind and body' (Descartes, 1983, p.216). Hence, while the soul is essentially a thinking thing and the body essentially extended, nonetheless they interact to the extent that the body confuses the mind and the body allows the mind to think some things it could not do so by itself.

This relationship becomes even more complex when we ask just what 'I' am. While on the one hand, Descartes says that 'although . . . I possess a body with which I am very intimately conjoined, . . . it is certain that this I [that is to say my soul by which I am what I am], is entirely and absolutely distinct from my body, and can exist without it' (1983, p.214). He can also say,

I thought I took sufficient care to prevent any one thence inferring that man was merely a spirit that makes use of a body; . . . Like wise, just as one who said that a man's arm was a substance really distinct from the rest of his body, would not therefore deny that it belonged to the nature of the complete man, and as in saying that the arm belongs to the nature of the complete man no suspicion is raised that it cannot subsist by itself' (1983, p.276).

But he goes much further and says, 'it is quite certain that my body (or rather myself in my entirety, in as much as I am formed of body and soul) may receive different impressions agreeable and disagreeable from the other bodies which surround it' (1983, p.216). We can understand this in terms of the relationship between the hand and body. If we consider the hand in its own terms it is a complete substance. 'Quite in the same way mind and body are incomplete substances viewed in relation to the man who is the unity together they form, but, taken alone, they are complete' (Descartes, 1983, p.272). So even though, in the pure sense I am my soul - the part of me that can think the thought 'I am' - in the sense that I am human, I am both soul and body. There is no easy line between body and soul. Descartes' proof that we
are thinking things is a demonstration of the soul's essence, not its easy separateness from the body. If the distinction were easy or obvious, there would be no need to argue it, and there would not have been all of those contemporary objections. Body and soul are one in terms of the whole person. They are organically one, and I cannot think or feel or experience the world as I do without both of them. Our actual thoughts and feelings are to a great extent bodily, even though we can only have them at all because we have a soul. The ontological question arises because in the cogitans the join is easy to see, body on one side and soul on the other. But this proof is in terms of essences, and defines the soul in its own terms. In terms of the whole however, the two are part of the one, and the join is very difficult to see. Where does the soul end and the body begin? For Descartes, this difficult mix is the reality of everyday experience.

The problem arises if we reduce Descartes to the cogito. Of course we can criticise a theory that makes so light of such a complex relationship, but this is not what Descartes is doing. It is the favouring of one side, the mind in the case of the Cartesians, or the body in the case of the materialists, that leads to an ontological clash, and to the mind-body problem. As post-Cartesians they fall into Bordo's paradox when they demand clarity and distinctness beyond the realm Descartes thought that clarity and distinctness applied to. By reading him as if he were a post-Cartesian, who demands that a things essence should equate to its existence, they apply the rules of Descartes' universe outside the context they were created in. Descartes' failure to deal with things in this way leads them to treat Descartes as if he were a pre-Cartesian operating without any understanding of the need to try to find clear and distinct ideas. Both Cartesians and materialists are caught up in the cogito which stands at the beginning of the journey Descartes wants to take us on. They then miss the richness of the country side we find as we explore Descartes' theory of mind.
If modern materialism misunderstands and over-simplifies Descartes it is also to some extent beside the point. For Descartes the mind/body problem was not much of a problem. It became a problem much more for Descartes' followers. Descartes was happy simply to prove that soul and body must be connected. This, he thought, left his critics needing to show why mind and body could not interact, rather than him having to spend time trying to demonstrate how they do. His followers were not able to do the same. Since his critics were not as happy as Descartes was to have the onus of proof put on to them, they maintained the attack on the Cartesians over the manner in which the soul and body were joined. That soul should be able to move body seemed absurd, and an argument that leads to an absurdity leads to a disproof of the argument, *reductio ad absurdum*. This external pressure combined with the internal pressure that came from Descartes' confidence that problems could be solved using his method.

As we will see in Descartes' reply to Gassendi, Descartes certainly implies that given time, the mind-body problem can be solved. Descartes' followers thus felt that they had to search for an explanation. Their solution was known as the 'two clocks theory' or occasionalism (West, 1965, pp.56-57). The theory said that just as in the case of two clocks, one of which we can see the face of, and the other one which chimes on the hour, the first clock may be thought to cause the chiming of the second, in fact they are not operating independently and causally, but synchronously, so the mind and brain worked together in their own ways in parallel. This parallel movement is maintained by God (West, 1965, pp.56-57). Now this theory explains very little, and is against Descartes' clear statements that body and soul do interact (1983, p.276). None the less, because it was the only explanation available it was accepted as Descartes' position.
But for Descartes no explanation was necessary or important. Now many critics have thought that this is simply Descartes attempting to avoid a problem he could not solve. Descartes does indeed seem evasive on the subject. When Gassendi says,

we cannot grasp how you impress a motion upon [the animal spirits], . . . unless you are really a body . . . Next, explain to us how such a direction can take place without some effort and so some motion on your part? How can there be effort directed towards anything, and motion on its part, without mutual contact of what moves and what is moved? How can there be contact apart from body, when (as is so clear to the natural light?) 'Apart from body, naught touches or is touched?'

(Descartes, 1983, p.292 Quoting Gassendi),

Descartes rebukes him for asking questions it takes no intelligence to ask but which would take a great deal of thought to answer, something Descartes has not, as yet, put the effort into. For Descartes it is enough that he can prove that the mind and body are two separate substances in one organic whole (Descartes, 1983, p.293). Since there are these two substances, and they are in fact joined together, then it can be left for another to say how they are joined. What Descartes is concerned to show is that this is the case. The lack of a demonstration of how it can be the case does not interfere with his proof that it is the case. The manner of joining is then irrelevant for Descartes' immediate purpose and may be left to another to solve. He does go on to argue, however, that it cannot be proved that soul and body cannot act on each other, and indeed for those who believe in:

real accidents, like heat, weight, and so forth, do not doubt that these accidents have the power of acting on the body, and nevertheless there is more difference between them and it, i.e. between accidents and a substance, than there is between two substances (Descartes, 1983, pp.293-294).

Now these are certainly not explanations, but reasons why no explanation will be forthcoming. For Descartes there is no problem with the soul moving the body since the spiritual is primary. His purpose in the cogitans is not to demonstrate how two things are linked but to prove that they are linked. Descartes does not need to say how they are linked, simply that they must be linked and the argument of the Meditations can continue. It is in the post-Cartesian era that we reduce Descartes
down to the cogito and find all the parts about God unnecessary and embarrassing. Surely, it is thought, Descartes is the father of modern philosophy because he makes the individual the centre of certainty and the universe. This key insight is viewed like a vine, while the idea of a God centred universe, a real immaterial soul, are the fruit, tasty but disposable, if they drop off the vine, the vine still remains. But Descartes' philosophy is more complex than this. It is epistemologically grounded in the cogito, but only because it is ontologically grounded in God and these two can only work together because of the relationship between body and soul. From Descartes' point of view, once one goes, it all goes.

The status of the relationship between mind and body is then of vital interest to all in the post-Cartesian world. If knowledge is no longer guaranteed by God, then how do we know we can know? Since it is taken that our knowledge of the world and of God begins with our knowledge of ourselves, the status of the self without God and without a real immaterial soul is of great importance. For Descartes the tension between the body and the soul is simply a fact of life. It keeps us from arrogantly supposing that we can know everything, while at the same time leaving open the possibility that we can build secure and certain knowledge. But as we saw in Chapter Six, for those who had followed Descartes into the rational universe because it offered certainty, this self-imposed limit to knowledge seemed to be an unnecessary and unfortunate fall away from what the master had initially promised. It is a great deal easier to radicalise the dualism or else to eliminate it in either a materialist or idealist direction. For how can knowledge be secured if the status of its origin and security, the self, is in constant doubt?

Descartes wanted people to use his method so that they could make decisions free from both prejudice and passion. He, however, did not anticipate that the method he used to bring people to the point of desiring certainty, that is, the rehearsal of the sceptical arguments, aroused a passion for certainty that outstripped what he had to
offer them. The way into Descartes' universe of rational unemotional judgements is, for many, through emotion: the desire to be able to make rational unemotional judgements which result in certainty. It is for this group, this is the driving force behind the desire to purify Descartes' philosophy of uncertainties. For Descartes' opponents, and those who appreciated his method but not his metaphysics, the uncertainties and lacunae Descartes deliberately left in his system had no other value than to provide something with which they could attack the Cartesians with. This, as we have seen, pushed the Cartesians to try to eliminate these perceived 'inconsistencies'. In trying to eliminate the uncertainties in Descartes' philosophy they transformed it into something which was no longer adequate to the world and which inevitably undermined itself as it was not designed to present the universe in its essential purity as if that were its existential reality. The demand for such purity leads to such ad hoc doctrines as occasionalism.

But it is not only the Cartesians who are left with problems. The materialist and idealist interpretations of mind and body are far from satisfactory, as the virtual elimination of one and the continuing debate in the other indicates. Those who want to eliminate the idea of the mind and the self completely are not immune from this tension, in fact they are displaying the ultimate attempt to eliminate Descartes' tension by eliminating one half of the basic terms.

This tension is part of the truth versus science dichotomy introduced in the last chapter. In order to have certainty one needs either intuitive reason (or unreason) or else to define certainty in terms of science. So the self is either freed from the constraints of all but itself, or else it must exist in a way that can be demonstrated either to, or not to exist. This is why there is the eliminativist push amongst some philosophers of mind and cognitive scientists. Eliminativism believes that the categories of folk psychology are badly mistaken ways of understanding mental events. "[B]elief, desire, fear, sensation, pain, joy, and so on" (Churchland, 1985,
p.44) are all to be eliminated in favour of descriptions in terms of neuropharmacology, neurology, anatomy, etc. (Churchland, 1985, p.45). Folk psychology has failed to explain the basics of mental events and so is revealed as misconceived. Just as other folk beliefs about the world have been supplanted by more scientific views, so these folk theories of psychology will become outmoded and die out.

Without going into this ongoing controversy in detail, it should simply be pointed out that if such an alternative vocabulary were available this debate would not be necessary. Its basic assumption is that any account of the mental which is not nailed down in terms of scientific demonstrability cannot in principle be correct. While the rest of science moves towards 'the greatest theoretical synthesis in the history of the human race' (Churchland, 1991, p.212), folk psychology, with its 'intentional categories stand magnificently alone, without visible prospect of reduction to that larger corpus' (Churchland, 1991, p.212). So the argument turns on two principles: the first is that folk psychology has failed to provide an understanding of the mental; this is then coupled with the second idea that scientifically demonstrable accounts are complete accounts of things. In other words, even though there is at present no such language that could eliminate folk psychology, nevertheless, because mental states as described in folk psychological terms are in many places mysterious and seemingly not reducible to science then they must be wrong. Only that which is scientifically demonstrable is correct, and in its correctness, it is complete. There cannot be in principle anything beyond explanation or clarity. So in order to find absolute clarity and certainty, we need to eliminate the mind. The dichotomy Descartes unintentionally set up becomes here the line down which the world is divided.

The attempt to obtain certainty places all these searchers within Descartes' universe. But by demanding that reality be divided up as neatly as essences they are demanding of reality that it be a certain way. This means that they are rejecting
Descartes' method which was meant to discover the essence of a thing, and not demand that it be something. So on the one hand they accept Descartes' idea that knowledge, if it is to be knowledge must be certain, and yet on the other hand they reject his idea that to attain this certainty we must follow his method which will lead us to the truth: we cannot know what the truth will be until we have found it.

Descartes was certain that there were some things you could not be certain of. To know if something is capable of being known with certainty we must examine it first. So he knew that our mind was a thinking thing and that our body was an extended thing, but he also knew that we were both mind and body so intimately linked that for most of the time the two could not be pulled apart. To demand a simple solution of the relationship between thought and body is to call the entire idea of certainty into question since it demands of the world that it conform to the convenience of thought. It then presumes the primacy of the mind and of thought and then seeks to place thought in its place within the universe. Such a process will then be either circular or contradictory. Such confusion will then ensure that the certainty that was demanded cannot be produced. The limits Descartes places on knowledge resist the speculative urge which Kant was also attempting to control. So Descartes brings people into his universe where certainty is possible through the desire for certainty, and this desire leads those in this universe to leave behind his method in the name of this same certainty. Cartesians and anti-Cartesians, modernists and postmodernists, materialists and idealists all fall into this world. They want either certainty or else the elimination of the uncertain.
Bibliography


