The Thinkers Guide to Big Ideas
‘Cogito Ergo Sum’

In ‘The Matrix’, everything that appears to be real is actually a computer-generated illusion. How do we know we inhabit the real world? This was Mopheus’ question to Neo. Neo was sure there was something wrong about the world he experienced, even though it felt solid enough. How would he know if he were in the real world or not? The question that epistemology asks is: How do we know what we know? Philosophers who have sought to answer this question fall into two main groups:

1. THE RATIONALISTS: Plato Descartes, Spinoza and Leibniz. These looked to reason and innate knowledge to provide foundations for knowledge.

2. THE EMPIRICISTS: Aristotle Locke, Berkeley and Hume. These looked to experience as a sure foundation for knowledge.

RENE DESCARTES (1596 – 1650)

The French philosopher, Descartes, is widely regarded as the inaugurator of modern philosophy. Modern philosophy starts with him. As with many great philosophical minds he led a very uneventful public life, but his inner life was quite a different matter. His mind left a great legacy and no young person today, who wants to be a truly thinking person, can avoid the necessity of engaging with this great mind. He was well educated, and after leaving school briefly became a soldier but in 1629 he went into seclusion in Holland to think, and to write, and he remained there until 1649. This prolonged period of seclusion was when he did all his great work.

At school Descartes had learned a great deal about what others had said and done. He realised that this had been a very valuable foundation for him, but that if all he ever did was to sit and repeat in his own mind the work of others, he would be no more than a very accomplished parrot. He wanted to be an original thinker for himself. Descartes would have been delighted by the way his influence has carried into the 21st century. He remains an icon for independent thinkers who want to move outside the limits of formal education.

These notes will give you a brief introduction to his revolutionary ideas – and it is hoped that you will understand from these notes the working of a great mind. You do not have to accept all he writes – he would be disappointed if you did.

Background

Descartes was a contemporary of Galileo. Up until this time science was not a discreet subject. If you had gone to school with Descartes you would not have studied science. The ‘Queen’ of the sciences was Theology. Philosophy also fell under Theology. What Galileo did was to challenge the authority of Theology to inform us about the world. He had done detailed observations of the stars the moon and the sun, and he could see that the Bible and the Church were wrong about a number of things. The Church and Galileo were on a collision course because they had different ideas about how we establish knowledge. How is knowledge established when the Church teaches one thing and observations show something different? Galileo argued that his observations were foundations for knowledge. The Church believed that God created all things, and that all knowledge had its source in God. The Church believed that she alone could arbitrate on matters of knowledge. Science was about to depart, forever, from under the control of the Church, but it was Descartes who realised that the basic question ‘how do we know things?’ needed to be settled before this could happen. Descartes realised that science had the potential to become a great, shared body of public knowledge, but for this to happen there needed to be an agreed method for scientific knowledge. He wanted to develop a method by which science could offer knowledge of the world, independent of the authority of the Church.

Descartes did not think that science could simply make authoritative conclusions simply based on a few observations. He argued that science needed a more reliable method which would offer grounds for certainty. His starting point was to say that we don’t have to accept anything as true if it is possible to entertain doubt about it.

The search for truth and knowledge involves the search for certainty.
His aim was to place science on a sure footing so that it would be beyond sceptical inquiry. He wanted to provide rock hard foundations, so that science could be sure of establishing truth. The beginning was to search for certainty.

**Cartesian Doubt**

The method Descartes proposes is called methodological doubt. It’s a huge thought experiment by which anything which can possibly be doubted is to be set aside, in the search for what can truly be KNOWN. The analogy Descartes uses is of a barrel of apples. If you wanted to remove all the bad apples you would have to empty out the barrel entirely, sort them out, and discard the rotten ones before refilling the barrel. This is his proposed method: We should take out each and every idea which we think we know to be true, and set aside all the ideas about which a reasonable doubt can be entertained. We are only to place back in the barrel the ideas which cannot be doubted. The purpose of this experiment is to find rock hard foundations which will then function as the foundation for other arguments, and also validate his method of inquiry.

In Descartes ‘Meditations’ he asks us the reader to join him on a journey of discovery.

1. He begins by arguing that we have to set aside our most commonly held beliefs about ordinary things such as objects in the world. Our senses can mislead us and are not therefore a reliable source of knowledge. A stick in water appears bent, when it is not.
2. Secondly he argues that we can doubt we are awake. He says that he often dreams that he is perceiving things. I cannot know that I am awake! I can doubt that I am awake.
3. He argues that even if I am in a dream some things still seem to be the case. The basic rules of mathematics and geometry apply in a dream to the objects I perceive. Is this a foundation for knowledge? Descartes says that if we are honest we can still doubt these things. It could be that a malicious demon intent on maximally deceiving me persuades me of the ‘truth’ of mathematics and geometry. Even these things can be doubted.

It is as if Descartes by throwing out all the ‘apples’ has reached the very bottom of the barrel and there are no good apples! What can possibly remain when all grounds for certainty have been entirely dismissed?

Descartes opens the First Meditation asserting the need "to demolish everything completely and start again right from the foundations" (AT 7:17).

"Throughout my writings I have made it clear that my method imitates that of the architect. When an architect wants to build a house which is stable on ground where there is a sandy topsoil over underlying rock, or clay, or some other firm base, he begins by digging out a set of trenches from which he removes the sand, and anything resting on or mixed in with the sand, so that he can lay his foundations on firm soil. In the same way, I began by taking everything that was doubtful and throwing it out, like sand ..." (Replies 7, AT 7:537)

It is important to realise that Descartes was not a skeptic. He was not intending to leave us with doubt so radical that we must doubt everything. He wants to rebuild, but like the builder, he wants to build with firm foundations. His aim was always to create firm foundations for knowledge. He is outlining a method by which we can achieve it, so that there can be a solid foundation upon which to build a secure footing for scientific knowledge. The method requires us to examine all our most common sense assumptions, and identify grounds for doubt. This is the modern scientific method. All developments in science are made because of methodological doubt. ‘It may seem that X causes Y to happen, but what if we doubt that for a moment and hypothesise that maybe there is another cause, or a complex of causes. What would happen then?’ Einstein famously employed this method and by doubting the Newtonian paradigm imagined what it would be like IF the speed of light were constant. Methodological doubt is a tool for an original mind as it gives it an intellectual space in which new ideas are thinkable. Before rebuilding Descartes wants us to realise how little we can actually be certain about. He expects the reader to join him when he says:

"I have no answer to these arguments, but am finally compelled to admit that there is not one of my former beliefs about which a doubt may not properly be raised; and this is not a flippant or ill-considered conclusion, but is based on powerful and well thought-out reasons" (Med. 1, AT 7:21).

**The Foundations**

The turning point in the Meditations comes next and this involves the famous Cogito Ergo Sum concept (although he does not use that exact phrase in the Meditations). Having imagined a malign demon deceiving him in every imaginable way, which was the ultimate most severe type of doubt, he says, even then, he is having a thought. Even if the thought is wrong, and he is deceived by some malevolent force intent on his complete deception it remains a thought.
I think therefore I am.

In the film the Matrix the computer programme is intent on keeping humanity asleep and securely ignorant of their condition. The reason they stay asleep is because their thoughts are constantly distracted by the images and impressions of a ‘real world’. The Matrix is a world of illusion which most people simply accept. Neo is one of the few who uses his capacity to THINK and when he does so he DOUBTS the reality he experiences. The single utterly indubitable thing which nobody can reasonably doubt is that they are a thinking thing. Even a deceived thought is a thought and gives KNOWLEDGE that we are truly without question thinking things. To be a thinking thing at all I must exist. I may not exist in the way I think I exist ( I may be in a pod being fed a computer generated reality, or a brain in a vat) but while I am able to think I can know without question that I exist. So, Descartes establishes two foundations, two things of which we can be absolutely certain.

1. I know I am a thinking thing.
2. I know that I exist.

Any conscious thought guarantees that there is a thinking thing in existence. Descartes included perception of things like pain and emotion as conscious thoughts. This then is what is known as the cogito. In French it is ‘Je pense, donc je suis’, but ‘I think therefore I am’ is normally rendered by the Latin – ‘COGITTO ERGO SUM’.

Descartes aims to rebuild from these foundations of certainty the whole world of knowledge. To be honest most philosophers do not think that he was hugely successful, but it will be of interest to you to see how he thought he could do this.

Rebuilding

The method of doubt has led us to see that our most obvious way of seeing the world is not true. The senses can not provide reliable foundations for certainty. The only thing that remains with certainty is the content of consciousness. The only way forward for Descartes is to build upwards entirely from the content of consciousness. The difficult step for Descartes is to make the move from knowledge of consciousness to knowledge of the world outside of the mind. In order to do this he introduces the idea in his conscious mind of infinite perfection, or God.

The argument is that in his conscious mind he finds, remarkably, the idea of an infinite perfect concept, namely God. This is remarkable since he does not see any way that his mind, being far from infinite and perfect, could have created this idea. He claims that it is an intuitive and necessary principle that the ‘lesser cannot give rise to the greater’. He is working with the thought world of Plato and Anselm in which perfect ideas of things like justice, truth and beauty, need some explanation. These higher concepts, which we all understand, cannot be explained by our limited minds, or by sensory experience. Nobody has ever experienced perfect justice, so how is it that we all understand such a perfect idea and share an understanding of it? Descartes finds the ‘perfect’ idea of God; in his mind, and since he cannot have created such perfection himself, he concludes that the idea of God must have been placed in him by God. God has left a mark or a sign inside Descartes mind which means that God must truly exist. He says it is as if he has been created and signed by God. God definitely exists therefore and Descartes believes that anybody of good faith, who has engaged with his meditations properly, will not be able to deny that they too find in their mind the signature of perfection, which is the mark of God within. He claims that if a person denies that signature they are not a person of integrity, good reason, or good faith. If they honestly look they will find ideas of infinite perfection inside their own conscious awareness, which will lead them to the existence of God.

This is the critical point in Descartes argument which takes him to knowledge of the external world. With the ‘knowledge’ of the existence of God, who is experienced as perfect and wholly good, Descartes claims that God is interested in his intellectual welfare. God would not allow Descartes to be systematically and continually deceived. The world of science has been given by God and God will guarantee the truth to those who embark upon a genuine search. This is how Descartes rebuilds and dismisses the most severe form of doubt – that he might be systematically deceived by an evil demon. God would not allow this as a constant state of affairs.

"Now, however, I have perceived that God exists, and at the same time I have understood that everything else depends on him, and that he is no deceiver; and I have drawn the conclusion that everything which I clearly and distinctly perceive is of necessity true.

(Med. 5, AT 7:70)
Of course Descartes may be deceived some of the time, by his senses for example, but God would not allow him to be deceived all the time. And the external world is a world of matter, which exists outside of the mind, which we can with good reason say, definitely exists. So, with the existence of God comes the truth about the external world. Four things can therefore at this stage be known.

1. I know I am a thinking thing.
2. I know that I exist.
3. I know that God exists.
4. I know that the external world exists.

Descartes rejects his earlier ever dreaming doubt, that he might be dreaming:

“When I distinctly see where things come from and where and when they come to me, and when I can connect my perceptions of them with the whole of the rest of my life without a break, then I am quite certain that when I encounter these things I am not asleep but awake. And I ought not to have even the slightest doubt of their reality if, after calling upon all the senses as well as my memory and my intellect in order to check them, I receive no conflicting reports from any of these sources. For from the fact that God is not a deceiver it follows that in cases like these I am completely free from error.” (Med. 6, AT 7:90)

The next step is to re-build maths and geometry and to place them on a secure footing. All things in the world have ‘extension’ and follow the laws of maths and physics. Things like colour and taste are subjective experiences but those things which have extension, (take up space in the real world, and have identity outside of my mind), are all subject to maths. Descartes believed that the external world was fundamentally mathematical in nature.

Yet when I turn to the things themselves which I think I perceive very clearly, I am so convinced by them that I spontaneously declare: let whoever can do so deceive me, he will never bring it about that I am nothing, so long as I continue to think I am something; or make it true at some future time that I have never existed, since it is now true that I exist; or bring it about that two and three added together are more or less than five, or anything of this kind in which I see a manifest contradiction.” (4th para of Meditation 3 AT 7:36)

This was a huge revelation because it marked the beginning of mathematical physics, which Newton would later use. There is a very real sense in which Descartes founded modern science as well as modern philosophy. He was an accomplished mathematician and ‘discovered’ the mathematics of a rainbow and he also created the system of co-ordinates with which you will be warmly familiar from graph work in maths and map work in geography. Mathematics is a route to knowledge of the world, but itself is a world of concepts, lodged firmly in the mind. The world of the mind and the world outside the mind are connected by mathematics. The truth of mathematics is guaranteed by the nature of God, who will not allow anyone who genuinely searches for the truth to by constantly systematically deceived. Descartes established that the world was something we are MADE to know things about. We are adjusted to know something of the world. For Descartes our basic nature is not material – we are fundamentally thinking things with consciousness not material beings with brains.

Science

Descartes has re-built a world in which we can rely on our minds. Some fundamental things can be known for certain, but not many. We can know we are thinking things, that we are not systematically deceived, that God exists and guarantees that our efforts will not be worthless, and that the external world exists and is subject to analysis. Mathematical truths can be known, but conclusions we reach using the senses are subject to doubt and need investigation and experimental enquiry. In science it is important to ask the right questions. If you ask the right question there may be a number of possible answers. All possible answers need to be properly investigated by experiment to see which best fits the observation. Descartes does not think that we can just dream up ideas that are necessarily true just because we dreamt them up! That is not what it means to be a rationalist. Descartes does have great faith in the human mind as a route to knowledge but thinks any information based on sensory observation will always be subject to doubt. This is what makes him a rationalist and not an empiricist – he prioritises reason over observation and experience as a foundation for knowledge. He does not deny the importance of the senses, but nor does he think that they provide a secure foundation for knowledge. Descartes believed that scientific foundations for knowledge should be separated from the Church and ought not be open to theological interference. But Descartes world is far from being a Godless world. God is
indispensable for arriving at knowledge. If a person does their bit, and works hard to find the truth God will not allow them to be deceived. Human knowledge is guaranteed by the existence of God.

The Enduring Relevance of Descartes

The work of Descartes has had a long standing wide ranging impact upon western thought. Epistemology poses a basic question for all would be thinkers. What can I known and how can I know that I know it?

Descartes has set the agenda for much modern philosophical enquiry. What can I know? Who am I? Where have I come from? What am I? The focus on the self, as a unique subjective experience, provided the foundations for existentialism and the work of Sartre and Kierkegaard.

The path of doubt is compelling – how can I stand back and establish the difference between knowledge and my own personal preferences or prejudices? Is it possible?

Descartes dualism of mind and body, in which I must see myself primarily as a mind capable of thought, began 400 years of further discussion on the relationship between the inner mind of human consciousness and the external world. What is the relationship between ‘knower’ and ‘known’? This is arguably at the heart of all modern day scientific questions and has been raised to new heights by quantum theory in which the the desire to know affects the experimental data itself. And the method of doubt stands at the heart of modern day science – it’s hard to imagine how revolutionary it was at the time.

Cartesian mathematics is still alive and well today. His work on co-ordinates as well as his work on the laws of refraction (formalised in Snell’s Law), are taught in all good schools. The work of science, ‘Unweaving the rainbow’, (A quote from a poem called Lamia by John Keats), quite literally began with Descartes.

Most of all Descartes challenges us to think for ourselves. He was right, that if we never move beyond the thoughts of others we are just not reaching high enough. It takes courage to think your own thoughts, and sadly our education system encourages memorising and parroting. Understanding the work of others is critical but the challenge of Descartes, to progress beyond it, remains. He was also right in thinking that we will certainly make mistakes and pursue paths which turn out to be wrong. That is why his method of doubt is so important in establishing that which can be known.

Descartes has many critics and many of you will have identified with ease the issues which remain unresolved. The humble aim of these notes was to expose you, perhaps for the first time, to a unique thinking thing, with the hope that you may be inspired to become one yourself.