Introduction

- These notes were originally conceived as a brief account of the history of western philosophy in the 17th and 18th centuries. Since most of the major philosophers of this period (and certainly those covered in these notes) were primarily concerned with epistemological problems, these notes are particularly focused on this branch of philosophy. Hence, I felt the need to include a very sketchy introduction to epistemology.

- With respect to the contents of my notes, I do wish to make it clear that I have no claim of originality in any possible way (on the contrary). Furthermore, I often use sentences exactly as they appear in the references on which I based myself without giving them proper credit. Since I have no intention of publishing this work, I see no harm in proceeding in this way. In fact, I chose to avoid quotation marks not because I want to be taken as the author of the quotations I include (I couldn't care less), but because, since I do it frequently, using quotation marks every time I should would compromise this text at the aesthetical level (and that I cannot bare).

- I used as my main references a series of interviews conducted by Bryan Magee and titled *In-Depth, Uncut TV Conversations with Famous Philosophers*, Bertrand Russell's *A History of Western Philosophy* and *The Problems of Philosophy* and Michael William's *Problems of Knowledge: A Critical Introduction to Epistemology*.

The Great Picture

Rationalists versus Empiricists

- Western philosophy in the 17th and 18th centuries can be divided in two opposing schools: **British empiricism and continental rationalism**. The main empiricists were Locke, Berkeley, and Hume and the main rationalists were Descartes, Spinoza, and Leibniz. **Rationalists believed that we can acquire knowledge about the world by the sole use of reason**, that is to say, by thinking. **One should start from self-evident propositions and then carry out processes of straightforward deduction.** The **empiricists** denied this; they insisted that experience was always a necessary ingredient; they maintained that **all our knowledge of what actually exists in the world must in the end be derived from experience**. The traditional view is that these two opposing schools came together in the end of the 18th century when combined in the works of Emmanuel Kant.

- Since the rationalist agenda aimed at finding a corpus of truths about the world from which all other truths could be *logically* derived, it is natural for a rationalist philosopher to ground his theory of knowledge in a sophisticate metaphysical system. Hence, we will see that, in contrast to empiricists that in general put forward very few metaphysical claims, rationalist philosophers develop very elaborate and often extravagant metaphysical systems.

- Nevertheless, rationalists are to be praised for having a positive approach to the theory of knowledge. The rationalist project is exactly aimed at finding a methodology by which we can systematically acquire new knowledge about the world. Empiricists are, on the contrary, mainly concerned with the *demarcation problem*, they want to establish what is that we cannot know about the world. Naturally, in aiming at a bolder goal, rationalists implicitly give a solution to the demarcation problem. Intuitively, rationalists are concerned about what we can know about the world and how can we get to know it, whereas empiricists are concerned about what we cannot know about the world and why we cannot know it.

Finding a place for god

- The idea of god is a common ingredient of the metaphysical systems of the 17th and 18th centuries. The role that different philosophers give to god in their respective metaphysical systems is in my opinion intimately related with the position they take on the issue of dualism, as I will try to argue below.

- Descartes is a dualist: he accepts the “independent” existence of matter and spirit. God rules the spiritual world, whereas the material world is governed by the rules of science (but it was created by god). This division does find a place for God in the “scheme of things” but not in the physical world. Hence, Descartes solution can be criticized from a theological point of view. God creates the physical world and moves on with his business. Furthermore, dualism introduces an important metaphysical problem: how to explain the obvious correlation between matter and spirit. How can mind and body interact with each other if they have essentially different natures? Descartes fails to give an acceptable answer to this problem.

- The problem of explaining the interaction between mind and spirit does arise in the metaphysical systems of both Spinoza and Leibniz (which are both greatly dissatisfied

with Descartes' solution) because they take a different stance on the issue of dualism. Spinoza is fully materialist, his world is a unitary world, a single substance both extended and in some sense mental or spiritual. Therefore he identifies god with the world itself, that is, the totality of what there is. Leibniz denies the existence of matter. For Leibniz, the so called material world is phenomenal, that is to say, it is a world of appearances, a by-product of the real world which is an infinite array of spiritual centers (that he calls monads) and which are the ultimate constituents of the world. Hence, Leibniz identifies God with the most import important monad – the one that coordinates all others.

Problems of Philosophy

- This chapter gives an overview of some of the main problems that occupied philosophers during the 17th and 18th centuries. Here, I will just give a brief outline of each problem instead of expanding on how it was addressed.

- **Correlation between mind and body.** If we assume that mind and body are of a different nature, for instance, that our mind is a spiritual entity whereas our body is a material thing, we are left with the problem of how to explain the correlation between mind and body. **This correlation manifests itself in two different ways: one concerning perception and sensation and the other concerning action.** For instance, if my body were to be cut, I would normally feel pain. Or if something brown and round were to be placed within my visual field under optimal conditions of illumination, then I would have a visual perception of something brown and round. Similarly, if I decide to move my arm, my arm will move (provided that it is untied and that I don't suffer from any disabling disease).

  We can see this problem as a **state correspondence problem between mind and body.** This point of view can lead us to think that **what explains correlation between mind and body is causation**, meaning that the fact that my mind is in a given state causes my body to be in a given state and vice versa. This solution was deeply problematic in the context of 17th century metaphysics. Descartes himself was inclined towards such a solution, but it caused him as well as his followers a major problem, because he maintained the two following propositions:

  - Cause and effect must be similar.
  - Mind and body are dissimilar (for Descartes, mind and body are dissimilar in the sense that they have different **essences** or natures).

  Observe that these two propositions are inconsistent with the following one:

  - Mind and body can causally interact.

  Thus, anyone maintaining the two first propositions is obliged to give up the causal explanation for the correspondence between the states of mind and body. Note that this is not the only path to take. One can instead ignore one of the first two propositions.

John Locke

- Intellectual foundations of liberal democracy and modern empirical philosophy.
- John Locke was the first of the British empiricists. The main point of his philosophy is that our conceptions about what exists can never pass entirely beyond the bounds of experience. According to him, everything we can think of has either been experienced or has been constructed out of elements that have been experienced. Locke political philosophy influenced Voltaire, as well as the US founding fathers.
- Bibliography: Essay concerning human understanding;
- Central Ideas in Locke had already been expressed by other philosophers.
- He puts into question the Aristotelian view of the world, that is to say, the world as an enormous machine subject to physical laws.
- He explains thought as a series of ideas before the mind. An idea is something in the mind or before the mind that represents things outside the mind. In reasoning the mind confronts these ideas or is confronted by them. Hence, his definition of knowledge: the perception of a relation between ideas.
- For Descartes the senses deliver data and they incline us for having some beliefs, but these beliefs don't count as knowledge. They have to be interpreted and explained by reason to be considered as such. Basically, the senses don't deliver knowledge, it is reason or the intellect that operating on the data that is collected through the senses that produces knowledge. For the Locke, the senses themselves deliver knowledge on their own right. This shows in the different approach of these to philosophers to the skeptics. Descartes accepts the skeptics challenge to supply reasons for believing in an external world: a world of objects outside us. Locke rejects this challenge. He says that the skeptics are casting doubt on the some of the most fundamental faculties of the human mind: the faculties that allow us to perceive the world. But for him the senses don't need reasons: they just supply us with knowledge.
- What does Locke mean by **idea?** For Locke an idea is something very different from what it is for Descartes. For Descartes it is something fundamentally intellectual. For Locke it's fundamentally something sensory. Even if you're thinking about something that you are not actually perceiving, you do have a **sensory image** of that thing.
- This theory of imagism was not an uncommon one in the XVII century and it was reflected in two different views of the world:
    - **Dogmatic/materialist view of the world** (Hobbes) - we can analyze experience to arrive at a sort of understanding of the world that Descartes thought we could arrive through the intellect.
    - **Skeptical view of the world** (Locke) – although the senses give us knowledge, they give us a limited knowledge and because all our thoughts about the world are restricted to the concepts that we "have" through the senses (all our thoughts involve sensory images) that restricts our knowledge of the world. Thus, he defends that there is no method by which we can arrive at the underlying nature of things. The skepticism in Locke expresses itself in the following way: we know the world is there, but we don't know what it's like.

- Locke thought that everything that is present in the mind is an idea. He used this word, **idea**, not just for thoughts, but for sensory images, memories, pains, emotions etc.

- When it comes to our apprehension of the external world, Locke thought that we don't have access to the external objects. If I look at a given table, I don't have that table inside my head. What I have inside my head is a visual image of that table. What is important to stress is that the whole of my experience (through all of my senses) consists not of being in immediate contact with the objects of the external world but of having images and representations of them. It is however important to underline that despite believing that we can never have **immediate knowledge** about the nature of the external objects, Locke does not put their existence into question. Why is that so?

- Locke's model is very simple. There is the object, it is affecting us in various ways and it is affecting other objects around it. It is through its effects on us and through its effects on other objects (that in turn have effects on us) that we acquire knowledge about the object.

- We have to think of objects in terms of lists of sensible qualities.

- He believes that the world must make sense. He believes that the world is an intelligible place. That is to say, that is governed by rules (by necessary laws) and thus a place that a perfect science can explain and understand. However, at the level of sense perception, although there are regularities, they're only relative regularities. We don't get that kind of absolute law likeness at the level of ordinary experience. That would be the sign that we had arrived at the truth of things. It's because we don't have a simple comprehensive science that he can be sure that the senses don't give us knowledge of the true nature of things.

- In Locke's view we don't have access to the external objects as they truly are. So, how can Locke account for successful science? How can we know what the nature of things is?

- Locke is a skeptical. We are restricted to speculation and we must employ in that speculation concepts that we get from experience.

- What science explains is not the underlying nature of things but rather how things behave and how things interact with each other. That's his understanding for instance of Newton's findings. Newton himself had a similar understanding of the nature of his findings.

- From Galileo to Newton, but above all from Newton, the belief that there are equations buried in reality spread more and more. What was Locke's view on the nature of mathematics?

- For Descartes, geometry is part of the science of space; it is part of the science of reality. For Locke, it is instead an abstract science that is created by us. We pick of some geometrical properties of things and based on them we construct new properties ad lib. We can construct a science based on these properties precisely because it is not concerned with the real nature of things, which is unknown, but rather with our own ideas.

- Locke thought that things had two kinds of qualities: **primary qualities** and **secondary qualities.** Primary qualities are those that are independent from the observer. Locke

identifies the primary qualities with the mechanical properties of things, like their weight, their volume. Hence, primary qualities are those that can be measured. For Locke, secondary qualities are those that cannot be measured and hence are qualitative.

- Locke thought that the world as we experience it consists of two fundamentally different types of entities: minds and material objects. We cannot know what these are in their inner nature and thus in their inner nature they remain fundamentally mysterious to us. However, we experience the effects of these material objects on us through our senses and based on these effects we build sensory images that represent these objects in our mind. We don't have access to real nature objects, instead we build a mental representation of the real objects in our mind that Locke calls a **sensory image.** A sensory image can be seen as a list of qualities that we perceive through our senses. These qualities can be of two kinds: primary qualities that correspond to the mechanical properties of objects and secondary qualities that are qualitative and depend on the observer.

- This summary is not completely right, because it may wrongly suggest an inconsistency in Locke's philosophy, which in fact is not there. It is true that Locke is inclined to think of the world as composed of matter and minds. However, he is consistent enough to say that since we don't know the nature of either, we can't even be sure of that. He's ready to accept the possibility that materialism is true, that we thinking things are in fact complex machines. He's ready to accept the possibility that there is no Cartesian soul, no immaterial natural immortal soul.

- **Cartesian soul in Locke**. He says that of us human being one of two things is true: either we are material objects that think and have emotions, or there must be something immaterial in us that thinks and have emotions and is in that case mysteriously allied to a physical object namely our body. When we try to think our way these two alternatives, we found that both of them are in a profound way unintelligible to us and yet one of them must be true. However, Locke believed in dualism.

- How did Locke see language as coming into our experience of the world? Where does Locke view language fit in our knowledge of the world? Locke wants to reject the Aristotelian view of the world as composed of **natural kinds** and that the business of science is to identify the nature of the natural kinds examining each one of them separately.

- But there are cows, there are horses… Locke considers the world as a great mechanical object composed of lesser machines (and dogs and cats are lesser machines), that function according the basic laws of physics. So there isn't a separate nature of dogs and a separate nature of cats. There is a different structure. Given that view, then he concluded that there were no natural divisions into **kinds**, there were resemblances at level of observations, and these resemblances caused us to slice the world up, but in the end the slicing is done by us and it is not done by nature. For the Aristotelian, there are these natural divisions, natural species and we simply identify them and **name** them. But for Locke, we do the slicing up and the consequence of this is that the terms we use (dog, cat etc) are in the end arbitrarily defined by us.

- We must keep in mind that the kinds he is attacking are the Aristotelian kinds.

- **Personal Identity.** He agreed with Descartes that one knew that one is a thinking thing. For Cartesian philosophers, the identity of a person is determined in life by the identity of the soul and the soul could go on to the afterlife. Locke started from a

different consideration: immortality has to be personal immortality. For the Locke, the whole point of immortality was reward and punishment. Suppose we grant that there is such a thing as an immortal immaterial soul and suppose we grant that this soul receives punishment, if that thing has no recollection of what happened on earth, the whole notion of immortality loses its point. So, what really matters is not this supposed immaterial soul, but consciousness, in particular, the continuity of consciousness.

- **Political Philosophy.** Call for tolerance. We don't know much in this life, we are wrong about many things, a great deal of things remain mysterious to us, so we are not really justified in imposing our opinions on others by force.

- He has an individualistic view of knowledge, that nobody else can do my knowing for me: I have to think things out for myself in order to have knowledge. In certain areas, in ethics and religion, he thought that people should be given the time to spend on thing thinking things out for themselves as far as possible. This is a recipe for tolerant society.

- **Locke's lasting contributions to philosophy.** Historically, he supplied a framework within which people could make sense of things such as Newtonian science. Also, he introduced a way of looking at the world in which we recognize that there is a lot about the world we do not understand and we recognize the speculative nature of science. Another important contribution was his emphasis on the point that the knowledge we get from the senses is really our perception of the effects of external objects on us and that the underlying nature of these external objects are incognoscible to us. This argument was employed by subsequent philosophers like Berkeley. The importance of Locke resides in the fact that he was the last great realist before the tendency to idealist philosophy.

- **Michael Ayers**

George Berkeley

- In part he reacts against Locke.
- The first of the absolutely major idealists.
- The philosophical doctrine for which Berkeley is most famous for is his rejection of the notion of material substance. He says that there is no such thing. All we have is experience and we have no warrant for inferring the existence of anything that there isn't experience. That was partly a reaction against Locke.
- This view may suggestion that Berkeley was a skeptical, which he wasn't. In fact, he was an anti-skeptical. Berkeley didn't doubt that there was something out there. There is something out there, but it's not the material world. Berkeley thought of the world as composed of spirits. The sensible reality was given a subordinate role. He doesn't deny its existence but he wants it to be dependent on the spiritual world. He's motive is fundamentally theological. To his mind philosophers like Locke and Descartes, had turned the material world into a kind of god almost, because matter is something that has a nature of its own which doesn't need god anymore. Once god has created matter, it's like a great clock, it can go ticking on, and God can go on holidays. Berkeley viewed materialism as a source of atheism. Any view that gives matter an equal status to spirit, can be viewed as a source of atheism. So the idea of Berkeley was to make the sensible world something that was mind dependent.
- Berkeley uses the distinction that comes from Locke between the world as it is in itself and the world as it appears to us, and he just chops off the world as it is in itself and all that is left is the world as it appears to us.
- So, if Berkeley does not believe in the existence of the world outside us; how does he account for the success of modern science? How can there be a science if there is no matter? He thought it could account for science better than Locke. For Berkeley all laws are just brute facts and they represent the order in which God affects us with ideas. One could sum up Berkeley's view of total reality like this: there's an infinite spirit which is God, there's an all number of finite spirits which is us and we are somehow in communication with God via our experience. Hence, what we take to be our experience of the world is in fact God's language to us, God is talking to us. Science, all the regularities in the world, all the scientific laws, all the equations and mathematics that are built into our experience are so to speak the grammar and the syntax of God's language, they are the structure of the divine communication to human mind.
- There's no need to postulate matter at all.
- If all reality is mental. How is that I can't choose what I see? There is something that exists independently of you and that is an idea in God's mind. And there is at least an intention of God to produce appropriate ideas in your mind when you open your eyes. Hence, the real object is explained in terms both of the order of your ideas and what exists in God's mind as the basis of that order.
- This leap between your ideas to something else – in this case the ideas in God's mind – has made Berkeley just as vulnerable to the skeptical argument as materialists ever were. However, for Berkeley, what is important is that what he postulates is something mind dependent and it is also more intelligible (or so he claims). Why is it more

intelligible? Well, the way matter acts on mind is totally unintelligible to us. God's activity, however, is fundamentally intelligible. For Berkeley the only kind of genuine causality is the activity of a spirit – be it ourselves or God.

- There is a powerful argument for the view that our concept of anything is tied to our experience of that thing (however indirect). This is Locke's argument too. However, Locke accepts the existence of an external world. For Locke there is something out there with its own independent nature that is totally unintelligible to us. Berkeley solves this problem by denying the existence of the material world. The world is not a mysterious place for Berkeley.

David Hume

- Treatise of Human Nature, An Inquiry Concerning Human Understanding, An Inquiry concerning the principles of moral
- He wrote a History of Great Britain
- Economist – monetary theories
- Politician and man of affairs
- Dialogues concerning natural religion
- Scottish enlightenment: David Hume, Adam Smith, James Boswell
- John Passamore
- Causality. Causality is the cornerstone of Hume's philosophy. For Hume we can't form any idea of an ordered world that does not involve a given notion of cause and effect. But causes are not actually observable. We may say that event A causes event B. However, what we actually observe is event A followed by event B. There isn't third entity in this scenario – a so to speak causal link between event A and event B. We can say that we know that event A causes event B, because B is always followed by A. This does not work as an argument. For instance, day always follows night and night always follows day, but neither is the cause of the other. In a sense, Hume criticized this idea of cause and effect that lies in the heart of our conception of the world and of our understanding of our own experience. And yet this notion is not validated by our own experience and it cannot be validated by logic either. By making us aware of that, Hume identifies a problem to which there is still no generally agreed solution.
- It is our character as human beings which compels us to believe that things are necessarily connected to one other; even though we do not observe in the world that necessary connection.
- The question of the continuity of the self. Although he takes for granted that we have selves (that we are continuous selves), he pointed that we cannot locate that inner self through observation or experience. When we look inside ourselves, we can identify individual thoughts, feelings, memories, ideas, emotions, and so on; but we cannot observe other entity – an entity - that has them.
- How does Hume explain personal identity?
- One thing that what he had to say about cause and what he had to say the self had in common is that in both cases he says let's look for the actual observation, the actual experience on which this every day idea is based. And in each of these cases, he discovers that they are not there. It's as if he is trying to base his philosophy based on facts.
- He tries to base his philosophy on fact. He describes his treaties as an attempt to introduce the experimental method of reasoning into moral subjects. Was he trying to make philosophy scientific? First, it is important to understand what he means by moral subjects. Moral subjects, as understood by Hume, would include politics, psychology, and moral philosophy among other topics. He did want to make these

topics more scientific in a certain sense. People that studied those subjects had a tendency to make wide statements without any real evidence, to start preaching rather than telling what things are like, to lay down laws rather than looking at the facts. What Hume stresses is the importance of looking at the facts in political life and human affairs just as we do in the natural sciences.

- **Theory of language and meaning.** For a word to mean anything at all it had to relate to a specific idea. And for an idea to have any real content it had to be derived from experience. Hume says if you want to know what a word means, look for the experience from which it's derived. If you can find an experience or an observation from which it derives, then it doesn't mean anything.

- He's very keen on the distinction between thinking and talking. We're thinking only when we're operating with clear ideas which have a real source in experience. He suggests that much of the time we're talking away and we're using completely confused notions that have no real foundation on experience. In everyday life we use a lot many notions completely unreflectively. Consider ideas such as social justice, or accountability. What do these ideas concretely mean? Hume's point is that we should look to see what things concretely mean.

- **Hume's fork**. He says that when you're approaching a given body of ideas for the first time, you must ask yourself two main questions:

    - Do these ideas concern matters of fact? In which case they rest on observation and on experience.

    - Do they concern the relation between ideas? As in mathematics and logic.

- He wanted to separate intellectual rubbish from thought. Not only in philosophy and politics but also in religion and all sorts of other fields. Clearer away of illusions.

- There is a particular illusion that he's constantly clearing away and that is that we can prove a great many things which we daily believe. He's constantly showing that really we cannot demonstrate even such facts as that things exist externally to us, or that they continue to exist when we're not looking at them, or that some things are necessarily connected to other things. For this reason, he often sounds extremely skeptical. And indeed sometimes he really does express himself in a very skeptical way. He thinks that a certain measure of skepticism, what he calls mitigating skepticism, is very useful because it prevents you to fall into the trap of large ideologies, large ideas of every sort which have no real foundation in experience.

- His skepticism was about the capacities of human reason and not about the world. Hume appears to believe in the existence of a material world of external objects that causally interrelate to each other and that we have representations of these external objects that are constructed based on the input we get from our senses. These representations, he thinks, are internal to us, but still give us an accurate picture of the world around us. He seems to believe in all this, but what he was saying was that none of this could be proved; you just have to take it for granted.

- Essentially Hume tries to show that what we can prove is very much less than what we think we can prove, even in the most fundamental affairs of life. Strict proof plays a very small role in human life outside special areas like mathematics. And he didn't think it was all that important. For Hume what mattered essentially were human beings. The human being lies at the center of his interests.

- Again, we stress than his subtitle to his “Essay concerning human understanding” he says that it is an attempt to introduce the experimental of reasoning into moral subjects. There are two parts in this subtitle: the experimental of reasoning and the moral subjects. The latter tends to be forgotten in favor of the former. We repeat: the human being lies in the center of his interests.

- How do his interests in history, politics, and economics reflect his philosophical concerns? First we have to understand that at that time the world philosophy had a much broader scope than it has today, including what we call today economics and political sciences. Hume regarded his work on human understanding as a necessary preliminary to his other works. Nobody paid any attention to these works, so he moved on. What Hume finds really important is, broadly speaking, social philosophy (in that topic lie the real problems that he sets out to solve). In this context, he views his work on epistemology as a necessary preliminary: Hume’s methodology to social sciences.

- Hume lies out a theory (or at least a conception) of human nature. He never doubted that there was such a thing as human nature. In this point, he is different from Locke. Locke had been particularly intent in getting rid of the concept of original sin. For Locke, human beings are born into the world with minds that are like blank sheets of paper. Then, in his works on education he therefore suggests that you can turn human beings in any direction you wanted. Many of the later thinkers of the French enlightenment running on even to modern Marxism have taken from Hume this view: it is society that makes human being what they are. Hume didn’t think that. For Hume, human beings have characteristics that are innate (they are inborn). There is a permanent human nature in which the passions are central. It is striking in most of the thinkers of this period that they put an emphasis on passions and interests in a way that most subsequent philosophers have not.

- He was a very knowledgeable person. He was a classicist and a Latinist. He was specially versed on Cicero. When he talks about a permanent human nature, he provides historical examples.

- Hume’s concerns are still modern. He’s credited with having formulated for the first time the famous problem of induction, that is to say, the logical basis on which scientific theories were traditionally set to rest. Because one event occurs in many occasions that does not mean that it occurs every time. Sometimes an event occurs in many occasions and on some occasion it does not occur anymore. There’s a change in the way things happen. You’ve been accustomed to rely on these regularities but the regularities break down. **What Hume says is that there’s no way of arguing from the premises that things have happened in a certain way on very many occasions in the past to the conclusion that they are bound to happen in exactly the same way in the future.** Every scientific lay is an unrestricted general statement which is said to rest on a number of particular observations, or experiments, or instances, and yet the logical link can’t be made.

- No finite number of specific observations can ever logical entail an unrestrictedly general or universal conclusion. However, all scientific laws are of that character. And therefore they are not logically entailed by the observations that are supposed to be their basis. This can be viewed as a criticism on the foundations of science. We have to understand that scientific propositions are in some measure hypothetical.

- With respect to style he places a great emphasis on clarity and on elegance. He set a certain pattern in which one tries to be clear, one tries to be critical, one tries not to make large assumptions and one tries to tie it up to what actually happens in the world.

- Hume says that most of the things that we take for granted are in fact impossible to prove. But then, how are we to distinguish the views that are reasonable to hold from those which are not? What then becomes the criterion of a reasonable man's belief?

- This is a very difficult question to which it does not give a satisfactory solution. We agreed that scientific laws are not demonstrable in the strict sense. Why however is far better to depend on these in our practical affairs of life than in some silly idea that someone thinks up in a bestseller.

- The idea that science is a body of known, demonstrated, proved certainties and that the growth of science consists in adding new certainties to the body of already existing ones. This idea completely contradicted by Hume. Hume retains (still today) his full power to disconcert.

- Any scientific work requires not merely careful work in a laboratory (and careful thinking at all levels) but also a capacity to make imaginative leaps. In Hume, the idea of the imagination constantly reemerges as of being of central importance. Imagination, he thinks, is essential to all our thinking about the world. Even in what we call our perception of facts, there is always an element of imagination at work. This centrality of imagination in Hume is very endearing. Einstein said that he would have never had dared to put Newton's view of physics into question, if hadn't read Hume.

- Hume's influence on Kant. Kant wants to get rid of what he calls the skeptical elements of Hume's philosophy. For Kant, we don't have isolated perceptions simply following one another. For Kant, we are from the beginning aware of things as causally connected, causally linked to one another. He puts a great emphasis on the creative power of the mind, which leads into the direction of German idealism, in the direction of writers like Hegel. Kant argues that if you start with empiricist assumptions, you will get problems that based on empiricist assumptions, you can't answer. Kant's solution is to reject the empiricist assumptions and take a different approach. Kant: if you begin from a position that what we are aware of are isolated events, no matter if they come from our own mind, or from perception, you cannot create out of them the kind of ordered world that we experience in our daily lives.

Descartes

- XVII century.
- Books: Discourse on the method, Meditations
- He was an officer (he held a position at the army).
- What was the main problem he was going to have to confront when he started? Descartes was impressed by the idea that there was no certain way of acquiring knowledge. It looked that there were some sorts of knowledge around but there was no reliable method by which people could advance knowledge. To contextualize, one should note that science in the current sense (an organized international enterprise with research methods and laboratories and so on) simply didn't exist and there was room for an enormous range of opinions about what this inexistent science should look like. On the one hand, there were people who thought that if you just found the right fundamental method, you could solve all the fundamental problems of understanding nature in a very short while (for example, Francis Bacon). On the other hand, there were people, skeptical people, who thought that you could not find any knowledge at all, that there wasn't going to be any knowledge. This skeptical view is a result of the religious reformation, after the religious reformation there were all sorts of claims about how you could find out religious truths, but they were all conflicting with one another. This gave rise to a tremendous amount of controversy. Finally, religious people reached the conclusion that there was no way of deciding between them, there was no way to find out religious truths. The next step is fairly obvious, religious people just affirmed that religion is no different than anything else and therefore concluded that there isn't a way of putting anything on a firm foundation. Skepticism was quite an important current in the intellectual climate of Descartes' time coexisting in an odd way with very extravagant hopes of what science might be able to do.
- Descartes in starting out on his search for certain knowledge was really looking for a research program, as we might say in modern terms, and prior to that a research method. Science was not conceived as a shared, or joint, or organized enterprise. For us, science means scientists, in plural. At that time, it was still a common idea that one man could lay the foundations of all future science. Descartes believed in that.
- Descartes was fascinated by the question of whether there was anything that we could know for certainty. For him, it was clear that there was a distinction between certainty and truth. To put it in very plainly terms, certainty is a state of mind, whereas truth is related to the way things are out there in the world. He seems to have thought that you could only be sure to have got the truth if you also had grounds for certainty. So, he was searching for a method that besides delivering the goods in the form of worthwhile conclusions, did also give him a way of defending these conclusions against skeptical arguments.
- Descartes had a set of conditions on enquiry. A very characteristic and important rule for him is that you shouldn't accept as true anything about which you could entertain the slightest doubt. That isn't an immediately sensible rule, because in normal life we are constantly seeking true beliefs about things, but we don't necessarily want to make those beliefs as certain as possible, so that we don't have to invest to much effort into making the ultimate certain beliefs all the time. But Descartes was trying to lay out the foundations of science and also the foundations of enquiry. Descartes

sees science as a set of fundamental general truths about the world. Descartes was much more worried about the foundations of enquiry – the foundations of a process by which one could go on to find out more things about the world. For him it was fundamentally essential: you should start the search for truth with the search for certainty. He wanted to put the scientific enterprise into a shape that it no longer could be attacked by skeptics.

- Preemptive skepticism. In order to put the foundations of knowledge beyond the skeptical reach, I will do everything that the skeptics can do, only better. And by pressing the skeptical enquiry hard enough he thought he would obtain something which would be absolutely foundational and rock hard. The only sure way of searching for truth is to start by searching for certainty.

- Cartesian doubt. He adopted something that he called the method of doubt – latter to be deemed Cartesian doubt – that was introduced as part of a larger method in the Discourse on the method. He was looking for certainty by laying aside anything in which he could find a doubt. He started by emptying his mind of all beliefs and he did that in three stages:

    - First, get rid of common sense.

    - Second, we can doubt that we are really awake and experiencing things. How can we be sure that at this very moment we are really awake and experiencing things? He called this the dream doubt.

    - Third, he imagines the idea of a malicious spirit whose sole intent is to deceive him as much as possible. Suppose there were such a spirit, is there anything he couldn't mislead me about?

- The method of doubt is meant to be used as a form of intellectual critique in order to winnow out one's beliefs and see whether some are more certain than others. It is a pure thought experiment; it is an abstract thought experiment. Descartes never meant his philosophical doubt to be a tool for everyday life.

- He wants to find rock hard indubitable propositions that cannot be doubted, that will resist any doubt. We remark that this requires an enquiry on what exactly is "cannot be doubted". He wants these propositions in part as premises of arguments. He also wants them in some rather more general role as to provide a kind of background which will validate the methods of enquiry.

- After peeling away all imaginably doubtable propositions, what are the utterly indubitable ones that he finally arrives at? The turning point of the doubt, that is, the point where the doubt has got to the end, does a u-turn and he starts coming back again constructing knowledge. The point at which it stopped was the reflection that he was himself engaged in thinking. The malicious demon can deceive me as he will, but he cannot deceive me in this respect, namely to make me believe that I'm thinking when I'm not, because if I have a false thought, that's a thought. In order to have a deceived thought, I have to have a thought, so it must be true that I'm thinking. From that Descartes draw another conclusion, namely that he existed. So, his first fundamental first proposition, or two propositions rather, was: I am thinking therefore I exist (*cogito ego somne* in the Latin formulation). This proposition is often called the cogito. It is important to make clear that by thinking he didn't just mean conceptual thought but rather all forms of conscious awareness whatsoever, experiences, feelings etc. So it wouldn't be unfair to say that what he was saying was: I'm consciously aware therefore I know that I must exist.

- After peeling away everything that can possibly be doubted in order to arrive at these fundamental indubitable propositions, he himself has shown that from these mental propositions nothing follows. Although I'm consciously aware, I may draw all sort of false inferences. So, I can be sure only of the fact that I'm conscious. He thought that the mere fact that I'm having an experience, as it were of being confronted with an object, doesn't guarantee the existence of the object (the existence of the table cannot even resist the dream doubt). I can't immediately infer from my experience. Descartes construct a set of considerations which will enable him to put the world back. However, the form in which the world is put back is rather different from that of common sense – we have a different view of the world when we reconstitute it than we do in our everyday common sense experience. What he puts back has been certainly modified by the intellectual critique of how we can learn things.

- In arriving at these indubitable propositions, Descartes seems to have painted himself into a corner because he has given himself indubitable propositions, which he shows, in the previous stages of the enquiry, cannot be used to infer any certain truths about the existence of anything outside myself.

- Having reached a point where it is only the contents of his consciousness that are available to him, if he wants to build any knowledge about the world, he has to it entirely out of the contents of his consciousness. So, he has got to find something in the contents of his consciousness that leads outside himself. And he claims the answer to this problem is the idea of God.

- **The idea of God.** He gives two arguments for the existence of God. The ontological argument that comes from medieval philosophy and a new argument conceived by himself. His argument is the following: the lesser cannot give rise to the greater. The lesser cannot be the cause of the greater. My idea of God is an idea of an infinite thing. And although it is only an idea in itself, it is nevertheless the idea of an infinite thing. It involves the idea that I can conceive an infinite being, but no finite creature, which I know myself to be, could possibly give rise to such an idea – the idea of an infinite being. It could only have been implanted in me by god himself. The idea of god is the mark of the maker on his work.

- Descartes is put in the position of founding our knowledge of the external world on a belief in the self-evidence of the existence of god.

- The things I know about god:
    - I know that he exists.
    - I know that he is omnipotent.
    - I know that he created me.
    - I know that he is benevolent.

- Since God is benevolent, if I do my bit, I clarify my ideas as much as I should, then god will validate the things which I am then very strongly disposed to believe. I do have a very strong tendency to believe that there is a material world and, since I have done everything in my power to make sure that my beliefs are not founded on error, then, because God is benevolent and thus is not deceiving me, the world exists.

- Descartes is thus arguing that the world of science is given to us by a God whose existence and benevolence are self-evident. He did not answer the question of the skeptics. He bypassed them.

- It is essential to him that his arguments concerning the existence of god must be assented by any person of good faith that concentrated on them hard enough. The idea is that if you lead the skeptic through his arguments, he must at the end assent. And then, he cannot consistently deny the existence of the external world.

- This argument leads to the view of the world as consisting of two different sorts of entity: there is the external world (given to me by a god on whom I can rely) and there is me who is observing this external world. When he is considering himself and the nature of his self, he can even imagine himself existing without a body, but he can't imagine himself without the thinking awareness. One consequence of this argument is that you get a world which consists on the one hand of thinking entities which are location-less and substance-less and a material world which these thinking entities are observing or thinking about. It is a world of observer and observed, of mind and matter, of spirit and material which has become built into the whole western way of looking at things.

- Descartes ultimate goal from the beginning is to establish the project of science (or what we would call science). He arrives at a certain view of the external world. How is this external world to be treated scientifically?

- When through the help of God we put the world back again, we don't back the same world that we threw away. Just as my essence as a thinking thing is simply thought, the external world has an essence too and it is simply extension – it takes up space that it is susceptible to being treated by geometry and the mathematical sciences. All its colorful aspects (colors, tastes, sounds…) are subjective – they are on the mental side. They are subjective things that occur in consciousness which are cause by this physical extended geometrical world.

- **The wax argument.** Suppose you have a piece of wax, it has a certain size, color, shape, smell, texture, temperature and so on… and it seems to you to be the combination of all those properties. If you put that same piece of wax in front of the fire, it immediately melts and then all those things change – different color, different smell, different temperature, different everything and yet we want to say that's the same wax. What's there about it that is the same? **Answer:** there's a continuous history of space occupancy. There is a great dispute about what exactly he thought the wax argument proved and how much he thought it proved just by itself. He used that example to illustrate (if not actually to prove) what he thought was a fundamental idea: **space occupancy.** He thought as things as pieces of space, he didn't think of things as things in space but rather as pieces of space. Because he didn't believe in the vacuum – he thought of the world as one extended item and individual things as local pieces of this one extended item in certain states of motion. This is a foundation for mathematical physics of the XVII century. In its own terms, it didn't come of; eventually it was going to be replaced by the classical physics of Newton. But he did a tremendous amount of work to establish the notion of a physical world that is fundamentally of mathematical character and permits mathematical physics to be done. The first of the great sciences to get going was in fact mathematical physics. Chemistry, for instance, was much more a product of the XVIII and XIX centuries.

- Descartes in his time did a tremendous amount of work to launch the possibility of science. Another figure of the time that also had a very important contribution was

Galileo whose actual physics is nearer than Descartes to the classical physics as it came out in the end.

- Descartes did not provide us with any physics. He showed that a mathematically based physics is possible and is applicable to the real world. He wants to show that the world is so constructed that man is capable of knowing about. Man and the world are made for each other by god. Even though man in his essence is not actually part of nature, because man is this immaterial intellectual substance which isn't part of the natural thing. Man is not part of nature in that sense, but he is, where his intellection is quite well adjusted to it and that means we can conduct a mathematical physics about the world. Descartes thought that some of the fundamental principles of physics could themselves be known by what we would call philosophical reflection. He thought in particular that we can know by such reflection that every physics had to have a conservation law. This idea of conservation in physics was to Descartes an ***apriori*** idea.

- Descartes is rightly said to be a rationalist philosopher, that is, he thinks that fundamental properties of things (of the world, of the mind and so on) can be discovered by reflection. And he does not think that everything is just derived from experience or experimental thinking. It is sometimes supposed that he was such a strong rationalist that he thought that the whole of science was to be deduced by purely mathematical or logical reasoning from metaphysics and if one thought hard enough about the cogito, God, and matter, one would arrive to the whole of science. He thought no such thing. In fact, he is absolutely consistent in saying that experiment is always necessary to distinguish between some ways of explaining nature and others. You can build different intellectual models of the world, but experiment is needed to discover which are truly there.

- Is experiment seen by Descartes as a means to test the answers or to give us the materials for the premises of our arguments? Descartes thought that there were a lot of different possible ways to explain the fundamental laws of nature. There were a lot of different models to consider. Hence, he regarded experiment as a means to select which model is true. One must emphasize that Descartes was very keen on the notion of model. Particularly, he thought it was worthless to blunder around the world and perform random experiments and see what one could find out. For Descartes, the scientist has to ask the right questions in order to get some answers. And, for Descartes, god is on your side, so god will not allow you to be systematically deceived if you don't systematically deceive yourself. So, what you got to do is thinking about the right questions to ask and god will assist nature in giving you the answers.

- It is worth making the point that although god is an absolutely indispensible element to Descartes in the course of arriving to his method, once you got the method, you don't have to be any sort of believer in god to use it. Descartes wanted to free the process of science from theological constraints or foundations and hence from theological interference. However, he was extremely keen to say that this does not mean that we have produced a godless world. We've produced a world that is in fact made by god and where our knowledge of it is guaranteed by god. Where you have to appeal to god in your intellectual life is not in conducting science, but rather in proving to skeptics that it can be conducted and you don't have to spend a lot of time in proving to skeptics that it can be conducted. You have to do it only one and he thought he had done it. Now, let's all get on with it.

- **Cartesian dualism.** Cartesian dualism can be simply described as the division of total reality into spirit and matter. This kind of division raises a theoretical problem

concerning the interaction between spirit and matter. How is a spirit able to push objects in the world around? He never did, but he did have a theory in which he tried to localize the interaction between mind and body in the pineal gland which is a body at the base of the brain. The idea of this purely abstract non material item could possibly induce a change in the physical world is so difficult to conceive, that produced scandal. A lot of the philosophy of the XVII century addressed this problem with the goal of trying to find a more adequate representation of the relation between mind and body than the one Descartes left us with.

- Some form of Cartesian dualism, of distinction between observer and observed, between subject and object, got into western thought for something like four hundred years. The distinction between subject and object (knower and known) is a distinction that is simply impossible for us to do without. There are indeed philosophical systems that argue that we have no conception of the known independently of the knower, we make up the whole world. Complete idealism, that is, the idea that everything that is there is a product of our minds is just quite difficult to believe. All science indeed depends on this dualism between the knower and the known which we can know independently of our process of knowing it. What I think very few people now assent to is the absolute dualism between the completely pure mind and the body. As in philosophers prior to Descartes, like St. Thomas and Aristotle, the knower has to be seen as an essentially embodied creature and not just as a kind of pure self.

- **The main influence of Descartes in western philosophy.** It was Descartes and almost Descartes alone who brought it about that the center of western philosophy for all these centuries has been the theory of knowledge. The idea that philosophy starts from the question: “what can I know?” and not from the question “What is there to know?” And not just “what can be known?” but rather “What can **I** know?” For Descartes philosophy starts from a first person egocentric question. And it was very important for the structure of Descartes system that it was possible at his time to think that perhaps science could perhaps be done by one person. It is indeed a very important aspect of his enterprise that it is autobiographical. It is no accident that his greatest philosophical works, “The discourse on the method” and “The meditations”, were written in the first person. They are works of philosophical self enquiry. Hence, the emphasis on philosophy as beginning with the epistemological problem and the self-enquiry are perhaps the most important contributions of Descartes.

- **Why should we study Descartes today?** Given that the central concern of philosophy has moved away from the problem of knowledge that was made central by Descartes, why is the study of Descartes now is as valuable as it was? Let’s lay aside the purely case of historical understanding, that is to say the role that Descartes has played in getting us into our current situation. In order to understand who we are, we must understand where we have come from. The reason to read the “Meditations” now is because the path it follows, the path of asking “What do I know?” or “What can I doubt?” is presented in almost irresistible way. He discovered something that is intrinsically compelling, which is the idea that we have all these beliefs but how can I stand back from my beliefs to see which of them are prejudices and which of them are really true, how much room for there is in skepticism. These are really compelling questions and it needs an enormous amount of philosophical work to get oneself out of this very natural pattern of reflection. Another very important question that he raised in the “Meditations” is the question: “what am I?” We can imagine ourselves in another body and we would remain ourselves. This gives us the idea, that I’m an independent of the body and the past that I have. Cartesian dualism is immensely difficult to believe, but at the same time it is almost impossible to resist.

Spinoza

- These notes are based on an interview given by Anthony Quinton to Bryan Magee.

- **Biography**. Spinoza was born in Amsterdam in 1632 in a family of Portuguese Jews who immigrated to Holland to escape the Portuguese inquisition. Spinoza was brought up and educated within a Jewish community, but he rebelled against religious authority and was excommunicated at the age of 24. He was a loner by temperament as well as circumstances and he chose a solitary mode of life in order to do his work. When he was offered a professorship, he turned it down. He earned his livings by grinding lenses for spectacles, microscopes, and telescopes. It is believed that the daily inhaling of glass dust from this occupation contributed to aggravate his lung ailment which finally killed him at the age of 44. His acknowledge masterpiece, a book entitled "Ethics", but in fact dealing with the whole range of philosophy, came out after his death but in the same year – 1677. A striking feature of this book is that it is modeled directly on Euclid's geometry; starting from a small number of axioms and primitive terms it proceeds by deductive logic to prove a long succession of numbered propositions which taken together lay out the total scheme of reality. It is often held out as the supreme example of a self contained metaphysical system whose purpose is to explain everything. In the year before his death, Spinoza had a serious of meetings with Leibniz.

- **Spinoza methodological approach**. Spinoza says that his book "Ethics" is demonstrated in the geometrical manner and he does set it out with all the familiar apparatus of geometry. He starts with a set of axioms and at the end of every argument we can find the letters QED. Subsequent philosophers didn't take Spinoza's reasoning very seriously.

- **The world as a unitary entity. Spinoza saw the world as a unitary entity, one substance of which all apparently different objects (and indeed people like us) are merely facets, merely modes, merely aspects.**

- **The Cartesian notion of substance.** To understand this idea of Spinoza of the world as a unitary entity, one should go back to Descartes, because Descartes defined **substance**. **The idea of substance in philosophy is a name for what it is that really exists, what the real components of the world are. Descartes defined substance as what requires nothing but itself in order to exist.** In terms of his view of things, the only true substance was god, because everything that existed apart from god (that is to say human souls and material objects, including the human body) was dependent on god for its existence. Hence, its substantiality was a little defective. **God was the only absolute substance.**

- **The notion of substance for Spinoza.** Spinoza the definition of substance by Descartes really seriously, whereas Descartes just drop the point. **Spinoza states that there truly is only one substance, there is only one thing that is the explanation of itself, there is only one thing whose essence explains its existence, whose nature it is to exist.** From the idea of god as the only substance, Spinoza concludes the unitary character of the totality of what there is.

- **God = Reality.** If god is infinite then there isn't anything that isn't god. Or to put the argument the other way around, if the world is separate from god, then god has boundaries, god has limits. Hence, for god to be infinite he must be coextensive with everything.

- There is only one thing whose explanation lays within itself, for everything else its explanation lays somewhere outside it. From one point of view, its nature the totality of what there is in space, but on the other hand, it's god; it's something broadly speaking mental. He actually says god or nature as the true name of the one-substance.

- There is a big step between the whole of reality as being a unit and then seeing that unit as being divine or as being god. What were his grounds for doing that? He bases himself in god's perfection. Nature is not a passive byproduct of god's activity, but nature was the totality of what there was, the self-explanatory thing, and so to that extent was a perfect entity, the most perfect thing that could be and therefore deserved the name god. The only god that he was prepared to countenance was a god that was identified with the whole array of natural things. Summing up Spinoza vision, he was saying in fact that if we call the totality of what there is nature, then we can say in our terminology that there is no supernatural realm and also that god cannot be outside nature, god must be coextensive with the totality of what there is, if god is infinite.

- Descartes posed the problem of how mind and body interact with each other, but did not provide a satisfactory solution to it. Spinoza says now that this problem does not really arise because in fact everything is a different aspect of the one, which is everything. In developing his thought that the one substance is infinite, Spinoza says not only does it contain everything and have nothing lying outside it, but he also says that God or nature (or the totality of what there is) has an infinity of attributes. This is puzzling, because according to Spinoza only two of these attributes are intelligible to us; the others have to be taken on faith. The two we know are the attributes of thought (consciousness) and the attribute of extension. What Spinoza maintains is that every wrinkle in total fabric of the one substance (these wrinkles he calls monads), for Spinoza they are just temporary contours taken on by the fabric of everything that there is, like waves in the sea. Each of these is at once conscious and extended and so these wrinkles of reality have at the same time a mental aspect and a physical aspect. The body and the soul are one and the same thing viewed from two different directions.

- With respect to **free will**, Spinoza's views are very clear. He maintains that the vulgar commonsensical notion of freedom, that is to say the idea that the human individual can sometimes act as a spontaneous, uncaused cause of things is simply impossible. For Spinoza this is an illusion resulting from us not knowing what the causes of our actions really are. However, we can be induced to act by some causes rather than others. Spinoza distinguishes two types of emotions; the passive emotions generated in us by the frustrating influence of the parts of the world outside us and active emotions generated by an understanding of our circumstances in the world and knowledge of what is going on. The greater our activities are caused by active emotions and the less by passive emotions, the less in bondage we are, because we are more ourselves. Spinoza was in this sense probably the first person in Europe to introduce the idea that was later developed by Freud and modern psychoanalysis, that discovering what the hidden sources of your actions and emotions are will be liberating and thus will make you happier; even if it does not in the end increase your freedom.

- We can see Spinoza's attitude to Men's position in the world as a stoic one: the idea that the world around us is not particularly interested in us; therefore we must diminish its power to make us suffer by controlling the emotions it excites in us. That is a stoic idea. But there is something more, Spinoza does not want Man to overcome his exposure to these bad emotions coming from the outside world by repressing them, or through a mental discipline (this is the stoic's view). Spinoza maintains that it is by the exercise of the mind (by gaining an understanding of the world) that Men should diminish the influence of the world on himself. We have to replace the passive emotions with the active emotions, the highest of which consists in the intellectual love of god, which is the emotion that attends metaphysical understanding, a total comprehensive understanding of the world.

- Although he does not believe in free will, in the immortality of the soul (because he does not believe that anything is permanently separate from everything else), and in the existence of a personal god (because he thinks the divinity is identical with nature), he is often considered a religious thinker. At the same time, he is often considered a pantheist. There is a very close correspondence between many of his views and many of the views of his contemporaries, namely with Thomas Hobbes. Hobbes could be rightly described as an atheist. Spinoza, however, has a religious attitude; it is one of awe and respect for the Universe. It is parochial to deny that Spinoza is a genuinely religious person because the attitudes which in our cultural background are normally adopted towards a personal, wrathful, interested god are in his case adopted towards the whole scheme of things. We have to understand that the god of Spinoza is not a personal god. He actually said that "it is quite right and proper for an individual to love god, but it is absurd that he should want god to love him back". It is as if man were to love nature and expect nature to love him back. This view of Spinoza on Men's place in the universe has several parallels with the more elevated and sophisticated types of Buddhism. What is important to emphasize is that Spinoza's attitude towards nature is in fact a religious attitude, even though it is not directed towards the familiar objects of religious attitudes in our culture.

- Spinoza was perhaps influenced in his religious views by his **Jewish background**. Considering the Kantian trinity of God, freedom and immortality. The Jewish god is a personal god. Immortality is not emphatically central to Jewish religion. Perhaps there is freedom in Jewish theology. However, in the general domain of the ethical relationship to god, the Jewish view does not have a place for petitioner prayer (for asking god to do something for you), the Jewish view is one of grateful acceptance of what god offers. Jews are not always seeking favors of god as a Christian often is, but accept what god has to give with tolerance and submission. This is a view that is very characteristic of Spinoza.

- Spinoza was much deplored in his own age. His sincerity in his religious professions was very much questioned in his own age. He was often considered a blasphemous atheist. It wasn't until the Romantic Movement in Germany, in the early 19th century, that Spinoza came more or less into his own. He has always been an object of veneration because of his personal dignity and his unworldly withdrawal from ambition and self-success. He is also a person of great sincerity; his own life story is perfectly in accordance with his philosophic doctrines. Therefore, he is admired but he does not appeal enormously to the technical kind of philosopher.

Leibniz

- These notes are based on an interview given by Anthony Quinton to Bryan Magee.

Biography

- Leibniz was not only an exceptional philosopher but also a brilliant mathematician. Leibniz was born in Leipzig in 1646 and died in Hanover at the age of 70 in the year of 1716. He was a brilliant student and was offered a professorship at the age of 21 that he turned down because he wanted to be a man of the world. Thus, he traveled a great deal and was well known and honored in many countries. He spent the greater part of his career at the court of Hanover at the service of successive dukes, one of whom became King George I of England founder of the present British royal family. Leibniz carried out almost every imaginable task for a person in such a position and his philosophy was written in his spare time. He wrote an enormous amount, mostly in the form of quite short papers, but published scarcely any of them during his life. He also maintained a luminous international correspondence with many intellectual personalities of his time (including Spinoza), which is now of philosophical importance. Among his outstanding works are: the *Discourse on Metaphysics* (composed in 1686 and published in the 19th century), the *Monadology* (1714), and the *New Essays on Human Understanding* (composed between 1695 and 1705 and published in 1765) which is a point by point argument with John Locke's book, *An Essay concerning Human Understanding* (published in 1690).

Leibniz's epistemology

- **Truths of reason versus truths of fact**. Leibniz was the first philosopher who clearly introduced the idea that all meaningful statements must be of one of two kinds: they can be either truths of reason, or truths of fact. **A truth of reason** is true in the way a definition is true. If you say something like "all bachelors are unmarried", you don't have to carry out a survey of the bachelors in society to see if it is true or not, it **must be true by virtue of the meaning of the terms**. So, all you have to examine outside the statement itself is the rules governing the use of the terms in the statement. However, there is another kind of statement, which Leibniz deems truths of fact; for instance, "there is a monkey in the next room". To find out whether a statement of this kind is true or false, one has to go and have a look. **In other words, there are truths that must be true because of the nature of the terms involved and which would be a contradiction to deny (truths of reason) and there are other truths which are or are true by virtue of the way things are in the world and therefore, they can only be established by experience.** Leibniz was the first philosopher to clearly expand on this dichotomy. Some philosophers attribute this advancement in philosophy to David Hume. However, it is important to note that Leibniz established this distinction between truths of reason and truths of fact half a century before Hume.

Leibniz's metaphysics

- Like Spinoza, Leibniz also based his philosophy on quite large metaphysical system. Unlike Spinoza, however, Leibniz did not put it together in one single work. Instead, it

came out in bits here and there, in different papers, discussions, letters etc. One has, therefore, to put it together for oneself.

- **The Notion of Monad**. The best place to start in the study of Leibniz's metaphysics is the idea of the **monad – his notion of substance, which is utterly opposed to that of Spinoza because it is tiny. The monad is Leibniz's word for substance – a single unit.** Leibniz starts his *Monadology* with a very simple argument: **whatever is complex must be made of what is simple and the simple components of what is complex are the real constituents of the world. Every complex object is just the aggregation of its simple components. Whatever occupies space is extended and thus complex. Hence, the ultimate components of the world as non-extended are non-material, because non-extended in space.** For Leibniz, **the real world is composed of an infinite array of non-extended metaphysical points. Each of these points, since non-material, is therefore spiritual. The world consists of an infinite array of point-like spiritual items** (mental items), he even uses the word souls, all the way from the most important of them – god – down through the human soul (which is the particular monad from which we get the idea of substance in the first place) to the ultimate constituents of what we can see confusedly as matter.

- **Monads and modern physics**. A physical interpretation of Leibniz's argument could be presented in the following terms. **Leibniz is saying that everything that is complex must be analyzed in the light of its simpler components. If its simpler elements are still complex, then they must be further analyzed.** And therefore it must be the case that sooner or later you get to simple not further analyzable constituents of matter. **These simple constituents can't be material, because the very definition of matter is that it is something extended and extension is always sub-divisible. So, if they are not further sub-divisible, it means that they are not extended and therefore they are not matter.** Hence, Leibniz maintains that **the ultimate constituents of reality must be immaterial and not occupying space.** Leibniz's metaphysics is in a certain way aligned with 20th century physics, since one of the most influential doctrines of 20th century physics is that energy is the ultimate constituent of matter. One could realistically say that Leibniz was groping towards, in the vocabulary of his days, something very close to that. **He was trying to say that all matter is ultimately made of centers of activity which are not matter.** In the 17th century the only vocabulary available for talking about centers of activity which are not matter was the vocabulary of minds, souls etc.

- **Interaction between body and mind (between matter and spirit).** Leibniz denies the causal interaction between mind and matter. By claiming that everything that really exists is spiritual in nature, **he concludes that matter is not real – it is only phenomenal. Hence, there isn't any matter in itself for mind to interact with. Everything that really exists is spiritual in nature**. Leibniz goes even further in that he also denies any sort of causal interaction between finite monads. **For him, the only monad that acts upon the others is God.** As he puts it, monads have no windows to the world.

    - *There is also no way of explaining how a monad can be altered or changed internally by some other creature (…) The monads have no windows through which something can enter or leave. Accidents cannot be detached, nor can they go about outside of substances, as the sensible species of the Scholastics once did. Thus, neither substance nor accident can enter a monad from without.*

      *In **Monadology***

Assuming that mind and matter do not causally interact poses Leibniz the problem of explaining ***apparent causality***, **because the world really seems to consist of things causally interacting with each other.**

- **Interaction between body and soul (between matter and spirit) – the pre-established harmony – causality versus correlation**. **For Leibniz, there is an infinite array of mind-like entities interacting with each other. Each of these mind-like entities has a perception of all the others;** it has a point of view on the whole world that is often a very obscure and limited perception. **The picture of the world formed in each of these spiritual centers (or inner worlds of perception) is correlated yet different from the perceptions of the others. Every individual monad has its own perspective on the world. Leibniz thought that there is in fact no interaction between monads, there is merely a correspondence between their contents. Each monad has its own in-built history which develops; one quality succeeds another in the history of the monad. However, part of the content of each monad is its awareness of other monads and their contents are correlated by which he calls a pre-established harmony (and sometimes he uses this as an argument for the existence of god).**

- **The role of god**. One can say that Leibniz attaches an overwhelming importance to god in the scheme of things: **god created everything, god ordained the way everything is, keeps everything going all the time including us.** Therefore, one can say that **there is no need for a belief in causality**, **because god is doing everything all the time and hence there is no way in which things can cause other things by interacting with each other; all is being caused by god. In this picture, how does Leibniz account for free will**?

- **God and free will**. Leibniz's arguments for the existence of god are classical (from St. Anselm to Descartes). However, what Leibniz does with the idea of god is very striking, since he carries the idea of God's omnipotence a very long way. **God creates all the other monads that constitute the world and equips them with an intrinsic nature which determines everything which they subsequently do. So everything, as it were, is prepared by god.** Leibniz himself does not see that **this theory of programming rules out literal causality [why?]**, which is to be understood as some sort of correspondence between the contents of the monads. **Even though, Leibniz reconciles himself with the idea of free will, because for Leibniz lack of free will is to be caused to do things by something outside you, to be externally compelled to do something against the grain of your own real nature.** However, in Leibniz's view of the world, **every individual's determining force is part of the nature with which god has equipped that individual. Every individual is perfectly self-determining** (recall that for Leibniz monads do not interact with each other).

- **Rationalism and causality. Free will and causality**. **It is very difficult for rationalism to allow for anything that we could recognize as human freedom**, because of its intellectual ambition. **Rationalism is determined to explain everything, but if everything has an explanation, that explanation is going to be causal and thus for a rationalist everything that happens happens for a reason**, which means that everything that happens can be intelligible as part of some huge unitary design or plan. There is no room for any freedom of maneuver in a world conceived by a rationalist.

Emmanuel Kant

- Notes based on an interview given by Geoffrey Warnock to Bryan Magee.

- **Biography**. Kant was born in the town of Konigsberg in East Prussia, in 1724. Died there in 1804. He rarely left Konigsberg and never traveled outside his province. He never married and one could say that his life was entirely uneventful. Kant was the first great philosopher of the modern era to be a university teacher. This is rather surprising when considering the fact that even in the 19th century almost all first rank philosophers were not academics. Kant produced his fundamental philosophical works after the age of 57. His acknowledged master piece is the *Critique of Pure Reason* that was published in 1781. It wasn't very well understood at first. So, two years later, he published a short exposition of his central argument as a separate book usually referred to as the *Prolegomena* and then brought out an extensively revised edition of the *Critique of Pure Reason* in 1787, followed in quick succession by his second great critique *The Critique of Practical Reason* in 1788. Finally, he published his third critique, *The Critique of Judgment* in 1790. Meanwhile, he also published in 1785 a little book called *The Fundamental Principles of the Metaphysics of Ethics*, which has had an immense influence on moral philosophy ever since.

- **Free will and causality as a presupposition of science**. Kant is sometimes represented as conducting a sort of refereeing job between the merits and demerits of rationalism and empiricism. **However, the much wider and simpler concern that generated the other problems was his concern with an apparent conflict between the findings of the physical sciences in his day and the fundamental ethical and religious convictions of his time. It seemed to be a presupposition of physical sciences that everything that happens is determined by antecedent happenings and there is always a law that establishes that what happened was the only thing that could have happened.** But of course when we think about our own conduct, we believe that we and everybody else have alternatives before us and it is for that reason that we have to accept the responsibility for what we actually do. In other words, **how can there be free will in a universe governed by scientific and deterministic laws?** He was also concerned with the question of how a god would fit in an essential mechanical and physically determined universe.

- **Problems of previous attempts to find a place for free will in a world governed by scientific laws**. Kant was dissatisfied with the way his predecessors, among which stood out Berkeley and Leibniz, had tried to solve this conflict; because, for Kant, **they tried to solve it by downgrading the ambitions of physical sciences and presenting them as inferior to their respective metaphysical theories.** Kant thought that this was not the right way to proceed because science was progressing steadily, whereas philosophy was a battlefield where no consensus seemed to be possible.

- **Hume's challenge.** Kant thought that Hume had raised serious doubts about the credentials of philosophy as a possible intellectual enterprise at all. He thought that Hume's challenge had raised serious doubts as to what philosophers were professing to do was even possible. He made a famous remark about how "Hume had awaken him from his dogmatic slumbers".