Western Modern Philosophy

Notes and Summary[1]

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[1]From *Classical Modern Philosophy* by Jeffrey Tlumak and Stanford Enclycopedia of Philosophy and a load of other sources

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History

> One can disagree with both Spinoza and Hegel, but understanding is a prerequisite to more than verbal disagreeing, and, once they are understood, they stand in no need of being refuted. For indeed it is one and the same thing to understand them in their fullness and to know them in their intrinsic limitations.
>
> *Étienne Gilson*

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Chapter 2

Descartes

> It is to Descartes that we owe the application of algebra to geometry—an application which has furnished the key to the greatest discoveries in all branches of mathematics.
>
> *Joseph Louis Lagrange*

2.1 Biographical Sketch

René Descartes was born in Touraine, France on 31 March 1596. When Descartes was thirteen and one-half months old, his mother, Jeanne Brochard, died in childbirth. The young René spent his first years with his grandmother, Jeanne Sain Brochard, in La Haye, together with his older brother Pierre and older sister Jeanne. Soon, Descartes left for the Jesuit College of La Flèche (1606 or 1607) and stayed till around 1614. La Flèche taught him grammar, logic, classical poetry, morals, physics and metaphysics. They also included three years of mathematics. At this time, the Catholic influence was tremendous and Aristotle's philosophy was taught to him. And as with all of academic Europe at the time, Aristotelian scholastic thought was the norm, with Thomism, as envisioned by Francisco Suarez, However, Descartes would've been exposed to the work of Cicero, Plato, the atomists and the skeptics. La Flèche was also home to another great mind, Galileo.

Descartes' father was a regional politcian. Descartes inherited serious respiratory problems and lived in fragile health for most of his life. Studying from bed was something he had gotten used to. At age 22, he befriended a thirty year old Dutchman named Isaac Beeckman who was a very important intellectual influence on him. Beeckman got Descartes excited about physics and mathematics. Descartes started working on 'physico-mathematica' with Beeckman, appling mathematics to various problems in mechanics, optics, astronomy and hydrostatics. In 1629 they fell out over a dispute concerning whether Beeckman had helped Descartes with some of his mathematical discoveries. In October 1630, Descartes wrote a long and harshly abusive letter, apparently meant to crush Beeckman psychologically, in which he declared himself never to have been influenced by Beeckman. However, and despite a few other such fallings-out, they remained in contact until Beeckman's death in 1637. Descartes was first a mathematician, then a natural philosopher and finally a metaphysician, a trend that reflects his work.

On November 10, 1619, Descartes had three successive vivid dreams that he interpreted as a vision expressing his mission in life. He became increasingly self-reflective, a monk of sorts. The obsession with this search for 'the love of Truth' agitated him to no end. Descartes interpreted the first two dreams as a reproach for his past life; the third seemed to encourage his philosophical aspirations. Descartes led himself to Philosophy from Mathematics after Physics. The path he took reveals the radical turn in philosophical thought that all of Western philosophy owes to Descartes—the epistemological turn; the question of certainty of knowledge.

2.2 Mathematics, Physics and Certainty

Descartes' most famous contribution to humanity is something that is the backbone to everyday physical and mathematical thought, yet it flies under the radar having become something trivially obvious. His creation is enshrined in his work *La Geometrie*; the work that introduced *analytic geometry* to the world; he himself referred to it then as geometrical calculus (*calcui geometrique*). Descartes introduced equations as properties of curves and space. He started with shapes and constructed equations out of them to connect the gap between geometry and algebra[1]. He introduces the modern

[1]Another notable addition to his legacy is the use of superscript to denote exponents.

notation, although never having used the modern *Cartesian* coordinate system, the work sets up everything necessary for its creation. Descartes offers innovative algebraic techniques for analyzing geometrical problems, a novel way of understanding the connection between a curve's construction and its algebraic equation, and an algebraic classification of curves that is based on the degree of the equations used to represent these curves. Mathematics had not yet settled on the question as to what sorts of proof should be accepted in geometry. Pappus' *Collections* split geometrical problems into solid-like, line-like and plane-like. Traditional geometry was well versed with and could solve the plane-like problems (solid-like are problems which require construction of conic sections, plane-like are problems which require only a straight edge and compass, line-like are problems which involve construction of curves with inconstant and changeable origins like spirals, cissoids, conchoids, cycloids etc). In the very first pages of *La Geometrie*, Descartes uses a notation such that geometric problems involving the use of straight edge and compass (and he contends any conic section and higher degree curves) can be written as an equation in terms of unknown quantities and known quantities which can further be analysed (in Pappus' terms) and an explicit solution of the unknown can be written in terms of the known. Hence geometric problems which are plane-like were capable of being solved using algebraic methods. Descartes had made a lot of ground in notation and formalism but also built the notion of analysis which Viete had developed before[2] Descartes gives geometrical constructions which correspond to arithmetical operations. His formalism allowed the compression of geometrical ideas into algebraic and vice versa.

Descartes introduces his distinction of 'geometrical' and 'mechanical' curves in Book Two of *La Geometrie*. His understanding of construction of curves introduces a distinction between the notion of 'accuracy of mechanical construction' and that of the 'exactness of reasoning'. He writes

> It is true that the conic sections were never freely received into ancient geometry, and I do not care to undertake to change names confirmed by usage; nevertheless, it seems very clear to me that if we make the usual assumption that geometry is precise and exact, while mechanics is not; and if we think of geometry as the science which furnishes a general knowledge of the measurement of all

[2]Descartes claimed to have not known Viete's work after being accused of unoriginality yet parodied it later, showing that he might as well have known it all along.

> bodies, then we have no more right to exclude the more complex curves than the simpler ones, provided they can be conceived of as described by a continuous motion or by several successive motions, each motion being completely determined by those which precede; for in this way an exact knowledge of the magnitude of each is always obtainable.....
> Probably the real explanation of the refusal of ancient geometers to accept curves more complex than the conic sections lies in the fact that the first curves to which their attention was attracted happened to be the spiral, the quadratrix, and similar curves, which really do belong only to mechanics, and are not among the curves that I think should be included here, since they must be conceived of as described by two separate movements whose relation does not admit of exact determination.

Here it is clear, that Descartes introduces an implicit understanding of generality and perfection which exceeds that of instruments and is completely 'mathematically' (abstractly) analysable. In doing so, with his introduction of his novel formalism and the revelation of the connections between algebra and geometry, Descartes laid the groundwork for modern geometry.

The previous century had had the likes of Kepler and Copernicus, working hard in the fields of astronomy and optics. The sixteenth-century astronomer Nicholas Copernicus opposed the previous geocentric astronomy by hypothesizing that the Earth moves around the Sun. A moving Earth would violate Aristotle's physical principle that all earthly matter naturally strives to reach the center of the universe, making the Earth a unique central globe around which all other heavenly bodies revolve. Galileo Galilei, using the newly invented telescope, discovered moons around Jupiter in 1610, challenging Ptolemaic Earth's uniqueness, where no things revolve around anything other than the Earth—the center of the universe. Johannes Kepler published works in mathematical optics in 1604 and 1611 that contradicted ancient theory by showing that the eye forms an image on the retina. Aristotelian physics was out of its way; Galileo, showed that the acceleration of falling bodies is constant. Galileo, Kepler and Copernicus all had quite a different approach to physics as that of the dominant Aristotelian form—a more mathematical approach. Descartes, under the influence of his mathematical education and Beeckman, came to regard this as the highest form of physical knowledge. He admired the certainty that came with a mathematical de-

scription of the world unlike that which described the senses. Descartes even developed his own principle of conservation of momemtum which is usually credited to the later Newton. The essential quantities of physics had become quantifiable (size, dimension and mass). All else followed by geometric and physical considerations. Aristotelian physics was abstract and done in non-quantitative hierarchical and structural terms of *form*. Descartes was a part of the movement away from this physics towards making physics today what it is, a quantitative mathematical science. Descartes had taken to the 'mechanical' philosophy which favoured a contact model where all of physics boils down to the composition of small corpuscles of matter (which he later thought were infinitely divisible) and their 'local' interactions/impacts with each other. By 1633, the Church had condemned Galileo and Descartes' motivation to publish his work in terrestrial motion, optics and meteorology had dropped–he alludes to this in the *Discourse*. Descartes' comprehensive account of physics had to wait till 1644 when he published *Principles of Philosophy*[3]. In this he writes: "If you find it strange that I make no use of the qualities one calls heat, cold, moistness, and dryness. . . , as the philosophers [of the schools] do, I tell you that these qualities appear to me to be in need of explanation, and if I am not mistaken, not only these four qualities, but also all the others, and even all of the forms of inanimate bodies can be explained without having to assume anything else for this in their matter but motion, size, shape, and the arrangement of their parts". However, it is crucial to realize that Descartes still held onto a modified view of Scholastic science. He wished to proceed in physics from 'clear and distinct' knowledge about general metaphysical items. Mathematics, Metaphysics and Physics were all entwined (as they always had been). Descartes was a thinker of an astounding holistic approach to the world. To justify his physics and mathematics and defend it's "heretical" doctrines from the Church, Descartes had to talk of certainty in knowledge and he intended to put it on firm footing.

2.3 To Philosophy through Dreams

One of the first texts we have of Descartes is titled *Olympica*. In this he describes the three dreams of which he was *affected* by. Descartes' task was to make reason the standard against which we can judge thought and then "dismiss" dreams. Our task is to understand the relation of Descartes' dreams

[3]For context, the *Meditations* came out in 1641.

to philosophy– to understand the subversion of dreams to reason. How did the search for reason's grounding originate in dreams which were themselves not so philosophical? Since, Descartes was enthusiastic about science well before sleeping and even after waking up, it is unlikely that enthusiasm was the *cause* of the dreams, and hence their relevance comes purely from their interpretation, from what they say. The first dream was that of an 'evil spirit' seeing which Descartes (bent to the left) goes to the Church to pray. The second involves sparks around the room. Both of these had natural explanations, of which Descartes himself gave in his *Optics*. These dreams remain insignificant. The third is more elusive as to explanation. Descartes dreamed an enclyopedia, then a corpus of poetry, then a verse "What path am I to follow?" and finally a poem titled , "*Est et Non*". For any such significance for this dream must come from the hermeneutic analysis of the texts, of which there must exist a hermeneut, but only Descartes and a 'man' exist in the dream neither of which reveal anything about it. Descartes is considered unique because he perceived the dreams, at first, as perfectly insignificant. Descartes then thinks and interprets them giving them significance. The dreams themselves were of no significance – neither divine revelation nor in presenting indirect knowledge, it was given to them by Descartes who mid-dream stops dreaming and starts thinking clearly.

Descartes interprets the encyclopedia to be all the sciences put together, a rather unusual thing to do at the time. The Corpus represented Philosophy and Wisdom, something else that is unusual as the skeptics of the Renaissance saw philosophy as a broken discipline (into ethics, logic, metaphysics and physics) and which was opposed to wisdom (not learned but came from ascetic principles). To equate philosophy and wisdom and to give the sum of the sciences a unity was not common during the seventeenth century. The sciences are unified because of their origin in the human mind. The human mind unifies knowledge philosophically; it therefore produces wisdom which, although human, is also by definition universal, wisdom springs from the same mind that unifies the sciences.

Finally, Descartes sees the verse as the uncertainty of choosing a sort of life ahead. We can interpret this as an ethical impulse, asking what is true or false is to clearly see into ones actions and proceed with confidence in this life; or that more broadly of orienting one's life through thought. Descartes says "devote my whole life to cultivating my reason and advancing as far as I could in the knowledge of the truth, following the method I had prescribed for myself." The search for a path bears onto life but more importantly on

the road of truth. The point is not to find the truth simply for the sake of finding it, even by chance. We must identify it with certainty (by method) and choose the road of truth according to the method and the order according to the method that orders the search.
By the 'Est et Non', Descartes understood Truth and Falsity (capital T and F) in human understanding and the sciences. The disjunction between Truth and Falsity is clear cut and excludes any third alternative. Later as in the first rule, the method he adopts defines truth as self-evidence, rejecting a middle ground between yes and no–absolute clarity. Jean-Luc Marion says: Probability is relegated to the realm of falsity since like falsity it falls short in the eyes of the agent of certainty, the *intuitus*, the gaze of the mind.
The indifference to whether he interpreted his dream while asleep or waking and that rational waking didn't rely on psychological waking means that Descartes fundamental thesis becomes clear. The thesis is the autonomy of thought (*cogitatio*) from all affections of consciousness, except self-evidence. This independence is established by the experience of dreams, "the very thoughts we have while awake may also occur while we sleep". Jean-Luc Marion puts it as: As long as we view as determinants the affections of consciousness, and the differences between them (including, first of all, the distinction between waking and sleeping), we radically misjudge thought, since it bears no relation to affection and acts according to reason, in light of self-evidence only.

Whether one is dreaming or awake (or more generally in any affection of consciousness) is totally irrelevant to what is evident to the intellect.

Descartes says: "Thought, I use this term to include everything that is within us in such a way that we are immediately aware of it. Thus all the operations of the will, the intellect, the imagination and the senses are thoughts". Jean-Luc Marion writes: "the *cogitatio* consists not of a specific kind of thought, or a specific type of act or affection of the mind; rather, it is the processing of *everything* that consciousness experiences, and which it turns into an object of representation, a *modus cogitationis*. In the explanatory mode, the *cogitatio* treats everything that consciousness experiences as an object."

2.4 The *Discourse*

The *Discourse* was written in French, a popular work for everyone unlike his other works written in Latin for scholars. The first part of the *Discourse* begins with Descartes announcing that everyone seems to have the same amount of 'reason'. Everyone seems to be satisfied by how good they are at judging whether things are true or not. However, we differ on what we apply our ability of judging truth to (what evidence, what method.)

- We all have reason.
- What do we do with it?
- Method is the most important. If we adopt the same method, no matter who you are or where you're from, the method should unilaterally decide what you judge as true and what as false. To what extent is Descartes justified in thinking this?

He goes from studying the books and scholars (and then disappointed by the lack of certainty there) to the world and its people (realising that a lot of what we take to be true is by custom) and finally to the self. He believes that we can all adopt this method, to reveal the self-evident truths through introspection. (Does he really?)

Books, Scholars $\longrightarrow$ World, People $\longrightarrow$ The Self

Decartes then poses the perennial complaint that philosophers never agree on anything, nothing in philosophy is not doubtful. And what about natural sciences? The natural sciences rely on philosophy, then what of their certainty?
Travel opens the mind and reveals what we accept as true as sometimes only custom. Ever the more cause to doubt their truth. Doubt is ever present. The Four Rules that Descartes outlines in the *Discourse on Method* as his guides for further introspection into knowledge are:

- **Self-Evidence/Indubitable** - Never accept anything as true that is not plainly known to be as such, that is to say, to carefully avoid haste judgements and prejudice; and to include nothing more in judgements than what is presented to the mind itself so clearly and so distinctly that there is no occasion to call it into doubt.

- **Analysis** - To divide each of the difficulties to be examined into as many parts as possible and as was required in order to better resolve them.

- **Synthesis** - To conduct thoughts in an orderly fashion, by commencing from objects that are the simplest and easiest to know, in order to ascend little by little, as by degrees, to the knowledge of the most composite things, and by supposing an order even among those things that do not naturally precede one another.

- **Keeping Track** - To make enumerations so complete and reviews so general that one is assured of having omitted nothing.

Descartes starts with **radical methodological doubt**. It is *radical* in the sense that he asks us to question everything, everything that is not self-evident. It is *methodological* in the sense that it is a method, being a skeptic does not mean one stops using language, or daily life, for it is a method to question beliefs. Trying to rework your mind and life still needs some "rules" to make sure that you survive the duration of the skepticism. This is something that is unique to Descartes. For the Pyrrhonists, and the other radical skeptics, skepticism was an end. Skepticism was the position which embodied the position of the impossibility of knowledge (say through the Agrippa's trilemma). In Descartes however, there is a forward-thinking ambition. Descartes knew that radical methodological doubt was necessary to strip our un-examined beliefs but he always looked ahead, at a time when all that would remain are well established truths, to regain the world from self-evidence. Descartes doubt is more than a mere skeptical challenge; it is a *method*. This is most evident when he introduces the 'provisional morality'. The provisional morality was

- Obey laws and customs, hold onto religion, govern self according to moderate opinions.

- Take resolute decisions and not waver from them once established.

- Try to change the self instead of trying to change the world.

2.5 The *Meditations*

In his *Pensees*, Blaise Pascal writes "I cannot forgive Descartes. In all his philosophy, he would have been quite willing to dispense with God but he could not help granting him a flick of the forefinger to start the world in motion. Beyond this, he has no need for God." Descartes' Meditations got a mixed response. Some theologians, mostly native French ones, were either ambivalent to Descartes or actively supported him. Most of the theological opposition to his work came from other places, like Holland and Italy. Thirteen years after Descartes' death, the Roman Catholic Church put his books in the list of prohibited books. When Descartes' body was returned to France, a court order prohibited a funeral oration at Descartes' reburial services. In 1685, King Louis XIV renewed a ban on teaching Descartes' philosophy in the universities. Opposition to Descartes continued in French universities into the next century. Simply put, Descartes' aim in the *Meditations* is to clarify, doubt and use only clear and distinct reasoning to understand the nature of God, the human soul and the human body.

2.5.1 The First Meditation

Descartes starts off the first meditation by recalling how he himself had lots of false ideas throughout his youth (and now) which he had gained from books, uncritical thought, sense-experience. A crucial move he makes is understanding that to demolish the opinions that he has, he does not need to prove them all false. He only calls into question their foundations. For doubting their foundations will inevitably remove any justification we might be able to give, once and for all swiping away large swaths of purported knowledge instead of pricking at each opinion. The sort of systematic grounds which Descartes wants to build off (an endeavour for indisputable truths that follow from certitudes) can be described as *foundational*. The things we know are either *foundational* beliefs (certitudes in the case of Descartes) or either direct inferences/corollaries of foundational beliefs. The main arguments he makes to make us doubt are

1. The fallibility of the senses means that we cannot be sure about any sensory perception. We see, hear, taste, smell things which are not as they actually are. Our senses can lead us astray. This means that they are not "certain". According to Descartes' method, we must doubt

them. How can we know that the things which cause them are how they seem? One objection to this that is brought up in the *Objections* is that we only know that our sense-perceptions are fallible by means of another sense perception. We know that the straw in a glass of water is not bent because we can touch it and feel that it is straight. Descartes replies that the sense experience of touch and visions themselves are not enough for there is nothing which tells us that we must trust one sense and not the other. We must use some amount of reason to judge that touch is veridical and that vision is not.

2. We might be dreaming. Then, the things which cause our perception might not even exist. How then can we trust that they are things which cause our perceptions at all? The class of things which are made of composites—corporeal things in general, their extension, their shape, their quantity, the place that they exist, the time they endure for and the like—are all composites of simple universals. This class is open to doubt. For in a dream, we cook up composites (like a unicorn) from two other things that we know of (a horse and a horn). However, whether we are dreaming or not, the sciences which treat of the simple and general things are not in doubt. 2+2=4 and a square has four sides.
   In a dream, a certain amount of sense data even if it corresponds to reality is not enough for knowledge. We cannot tell whether we are dreaming or not through images/the senses. Hence, if we wish to be epistemically consistent, the same sense data must not suffice for knowledge when we are awake.

3. The evil genius hypothesis. (How can analytic statements ever come into doubt? How can we ever come to doubt logic or reasoning because of a deceiver, then the reason for doubting it itself comes under doubt? We can only come to doubt analytic statements if we are deceived of their meanings for the things need not exist for the statements to hold. If so, how can we ever reach any certainty, as the deceiver could rob us of the true meaning of any statement at all.)

To summarise

- Doubt is *methodological*.
- Doubt is the *filter/test* for beliefs, the maximal doubt reveals the most certain truths.

- Metaphysical doubt is *prior* to mechanics, morals and medicine.
- Doubt is *foundational* in the sense that it articulates the possibility of knowledge and provides the framework and principles to derive knowledge.
- Doubt is *developmental*, i.e, real causes for doubt are extended into the hypothetical realm to treat of any general possible doubt.
- Doubt is *clarifying* as it reveals what must be necessary for us to accept a belief as knowledge.
- Doubt is *therapeutic*, removing misconceptions and generating a simpler method for judging and accepting truth.

2.5.2 The Second Meditation

In the first meditation, Descartes finishes by claiming that nothing so far has held up to scrutiny. He supposes that all he knows is false. In the second meditation, he is in search of one certainty; something indubitable. He finds it in the proposition, "I am, I exist". In the very act of being deceived, "I" must exist to be deceived, in the very act of doubting "I" must exist to doubt, in the very act of thinking "I" exists to think etc. I cannot conceive of my non-existence, for to conceive that, I must exist. So what does thinking involve?—imagining, affirming, denying, doubting, perceiving—*modes* of thought.

(What is special about thinking? I do X always presupposes/forces the existence of an 'I', doesn't it? The speciality comes from the fact that thinking survives the challenge of the affections of the consciousness. To reiterate, for the intellect, it is irrelevant what affection of consciousness we are in. Descartes implicitly thinks there is no other such thing, or else he cannot assert that 'I am a thinking being' is a sufficient condition for the self, although necessary.) This is the exact criticism raised by Pierre Gassendi and the response given by Descartes.

I know I am conscious because my consciousness is directly presented to me; it is not an idea of something. Descartes referred to self-evident truths like this as *simple intuitions*. Descartes emphasizes that the *Cogito* is not an inference. To make an inference from I think to I exist, we need another intermediary, "Everything that thinks also exists". However, Descartes does

not wish to say this. The *Cogito* is a simple truth which is self-evident. It is not a syllogism. It is lucid and a 'clear and distinct' idea. (Does this also offer a resistance to the criticism that the inference of existence from thought might be wrong as the evil demon might corrupt your ability to use syllogisms?)
What is the *Cogito*?

1. The *Cogito* is a performative truth, i.e, self-affirming.
2. The *Cogito* is a simple intuition.
3. Descartes' jump from *I think* to *I exist* is an inference to only explanation.

The usual criticisms of the *Cogito* are that Descartes unnecessarily posits an 'I'. For he can only as much say, 'There is thinking'. A contemporary also says that Descartes doesn't know whether it is him thinking or the world-soul like the Platonists believe. This is a good criticism of the *Cogito* but Descartes leaves a lot about the nature of the 'I' for further meditations. A more pressing criticism was raised by Thomas Hobbes. Hobbes says

> I do not infer that I am thinking by means of another thought for although someone may think that he was thinking (for this thought is simply an act of remembering), it is quite impossible for him to think that he is thinking, or to know that he is knowing. For then an infinite chain of questions would arise: "How do you know that you know that you know . . . ?"

Descartes would deny that the awareness of a thought has to be a separate thought. He says "It is irrelevant for the philosopher to say that one thought cannot be the subject of another thought. For who apart from him, ever supposed that it could be?" Descartes argument becomes more complex and historically interesting here. The Scholastic view is that knowledge comes from sense-perception and that is why we are more acquainted with corporeal bodies rather than the 'spirit'. However, in the second meditation, Descartes claims that he demonstrates the existence of the mind/spirit without ever invoking or even assuming physical existence. He is closer to God and has over-turned the priority of the self over the Church.

An important passage in the second meditation is known as the 'wax passage'. In this he argues against knowledge-empiricism. The argument (as presented by Jeffrey Tlumak) goes as such

- P1) Sense perception of a body changes even though we agree that the body persists through time.
- MP1) The essence (real nature) of that body is its unchanging features.
- MP2) Distinct perception of an object is perception of its essence.
- C1) Distinct perception of a physical body is not by the senses.
- P2) Distinctly perceived, the body which continues to exist is something extended, flesible and indefinitely changeable.
- P3) The indefinitely changeable is not imaginable, that is, picturable in determinate images; for example, we can't even imagine (but we can conceive) the difference between a thousand- and thousand-and-onesided figure.
- C2) Distinct perception of a physical body is not by the imagination.
- MP3) Perception is either sense perception, imagination, or intellection (these are the only representational faculties that supply mental contents for judgment).
- C3) Distinct perception of a physical body can be by the intellect alone
- MP4) Objects themselves are objects as they are essentially.
- MP5) Only minds have (are) intellects
- C4) Physical bodies themselves, as opposed to their external appearances, can only be known by a mind.
- P4) Whatever (now inconclusive) evidence I have for the existence of anything external to me is conclusive evidence for my own existence, but not vice versa.
- C5) I know my own existence better than the existence of any physical body (like wax)
- P5) Each perception of an external body (like wax) is a state of my mind that I can become aware of, but not vice versa.

- MP6) If one knows more features of X than Y, one knows the nature of X better than Y.
- C6) I know the nature of my mind better than (more distinctly than) the nature of any physical body.

To summarise, Descartes establishes that 'I' exist, 'I' am a mind—a thinking being— *res cogitans* (thinking substance). Throughout this whole argument any supposition of a body which is material is not necessary. Hence, through what is known as the conceivability argument, Descartes says that since we can conceive of the self completely independently from material bodies, the self is not a material body. If at all a *res extensa* exists, then it must be completely independent of *res cogitans*. This is the first expression of Descartes' *substance dualism*.

2.5.3 The Third Meditation

In the first two meditations, Descartes has established that the existence of the self is an indubitable truth and delved into the nature of this self, After an interesting digression into epistemology, he returns (not quite) to metaphysics to try to establish the existence of God. Descartes introduces the concept of an *idea* in the beginning of the third meditation. Ideas are mental representations of things, images of a mental kind. There are different kinds of thoughts too— *volitions* or *affects* and *judgements*. Neither volitions nor ideas can be false, whether you will an evil thing or have an idea of a chimera, there is no sense in saying that you don't will it or that you don't have that idea. Moving ahead, Descartes distinguishes ideas into three categories—*innate, fictitious* and *adventitious*. Innate ideas are those which are derived from reflecting and introspection. Fictitious ideas are invented and adventitious ideas are caused by observable physical objects in nature. In so far as ideas are all states of mind of the thinker, they depend on the thinker in the same way. But insofar as ideas are viewed as representing different things and so have different contents, they obviously differ from each other. Descartes then approaches he idea of God. To doubt is to lack perfect knowledge, so we must know what imperfection and by extension what perfection is. Thus, we must have the idea of God, a supremely perfect being. The idea of God must come from something as something cannot come from nothing. But an idea can only come from something with at least as much actual reality. Thus, God must exist.

Gassendi argues that we cannot have an idea of God. If someone calls something 'infinite' he attributes to a thing he does not grasp a label which he doesn't understand. Descartes responds by saying that Gassendi has confused the absolutely full adequate understanding of God (the truly infinite conception which no one has) and the understanding which is scaled down to our intellect. Descartes realises that we must not have a negative conception of the infinity of God. God is not just not bounded, the infinity of God is a positive infinity. Descartes believed that we must have an innate idea of perfection and infinity before we can conceive of the limitations in our world and selves.

Descartes then says that a deceiving God cannot exist, as a non-deceiving one must. Hence. he eliminates the evil demon hypothesis from contention.

2.5.4 The Fourth Meditation

Descartes' Fourth Meditation argues that since we can knowledgeably affirm a perfect God – and thus a non-deceiving God – we then have a reliable criterion of truth. Descartes topic of interest in the fourth meditation is error. Since God is all perfect, it must be better for us to be fallible than infallible. But this seems to be false. He says

> So what then is the source of my mistakes? It must be simply this: the scope of the will is wider than that of the intellect; but instead of restricting it within the same limits, I extend its use to matters which I do not understand. Since the will is indifferent in such cases, it easily turns aside from what is true and good, and this is the source of my error and sin.

Descartes says that all judgement involves both the will and an act of understanding. The act of understanding is the mere presentation (re-presentation) of mental content, what a judgement is about. The act of the will is to take a stance towards the mental content, that of affirming, denying or otherwise. Human understanding is perfect at the creature level but not absolutely perfect otherwise we would be God. Our understanding has limits but our will does not. Error is born when our limitless will outstrips our limited understanding. Error would only be impossible if we lacked free will. Descartes says that we can minimize error by restricting the use of our will when we don't understand things distinctly. For Descartes, freedom is essentially self-determination and one's understanding is one's true self. Throughout the

Meditations, Descartes doubts everything that can be doubted until he affirms clear and distinct ideas, when he can't but help but follow his understanding and affirm these truths. Descartes calls this the "freedom of spontaneity".
(Condensed from Tlumak) Descartes then examines judging to learn about the faculty of judgement. Judgements are those actions of the soul which are the primary bearers of truth-value. The Will is the mental capacity by which the mind inclines in some direction with respect to ideational contents. Freedom is self-determination. We are most free when our will acts most powerfully, not when we have the most control. What appears to my understanding disposes my belief just as it disposes desire. (Will's scope is greater than understanding's, which is greater than imagination's, which is greater than sensation's.) I am compelled to believe what I clearly and distinctly understand. When I don't understand something clearly and distinctly, my belief is optional. I can disbelieve something while consciously recognising its possibility. I cannot believe what I totally fail to understand. I rarely believe what I recognize at the time I don't adequately understand, but I do often think that I sufficiently understand something when in fact I do not. Though insufficiency of understanding is not naturally manifest, it is always detectable and often eliminable by proper method. It is not easy to avoid shedding believing what is obscure to me. Since by processes in my control I can avoid error, my mistakes are ultimately my fault; I am responsible for my errors because I can avoid error and I am responsible for what I can avoid. While seeking the truth, I do not choose to be deceived, as such. Choices I do make can bring about my deception. How to minimize error? I should be maximally epistemically responsible. What I believe depends at least in part on what sorts of evidence I take to be good. It would be epistemically irresponsible not to train myself to suspend belief on anything I do not have good reason to believe. Since I have irrevisably adequate reason to believe only whatever I understand clearly and distinctly, and my goal is to discover permanent foundations for systematic science, I should only believe what I understand clearly and distinctly. This requires thinking for myself, beginning with internal testimony, beginning with particular notions and connections and forming generalities from them, and so on, as delineated by my rules for the direction of the mind.

2.5.5 The Fifth Meditation

Humorously, Descartes attempts another proof of God in the fifth meditation, while also trying to probe into the nature of material objects. Descartes immediately observes that whatever portion of space is carved out, the resulting geometric figure has what he called a true and immutable nature. Descartes says that just like how we can prove geometrical truths through a clear and distinct idea of matter, we can do the same for theological truths by getting a clear and distinct idea of God.

Tlumak defines: *Concept-rationalism* is the doctrine that there is at least one innate concept. *Knowledge-rationalism* is the doctrine that there is at least one proposition that can be known a priori and whose truth is determined by extra-conceptual fact. *Concept-empiricism* and *knowledge-empiricism* are the denials of the above. *Strong concept-rationalism* affirms that most if not all of the concepts required for a priori knowledge are innate. Strong knowledge rationalism affirms that most if not all of the a priori truths are determined by extra-conceptual fact. Descartes in the Fifth Meditation is defending strong concept- and knowledge-rationalism. Descartes knows that he exists and that God exists it's not clear this is a priori knowledge (ii) if it is, these cases may be special and anomalous, so a general argument concerning the status of a priori knowledge is needed. As usual, a triangle is the example. Various properties can be demonstrated of the triangle. The talk of "not expecting it to have those properties" and "which are not within my power" suggest non-inventedness of the idea, but is not offered as the criterion of having a true and immutable nature. Such irresistibility is rather a consequence of clear and distinct perception of necessary connections. Geometry is illustrative of a general doctrine about natures – there are entailments analogous to geometrical entailment, neither logically nor analytically correct, but with correctness dependent in a crucial way on essential facts about the subject matter. Since there are certain non-analytic entailments with corresponding psychological compulsions, true and immutable natures must be the semantical ground of the truth of these entailments. Innate ideas are the ground of the corresponding set of mental compulsions that are manifested under the ideal conditions of clear and distinct perception. Therefore, strong concept- and judgment-rationalism are true.

Hence, it is the extension (the set of subject-specific properties) that makes the properties of a triangle true non-analytically. The properties that subject-specifically entail one another in virtue of the attribute of thought are

intentional ones. Innate knowledge results from an appropriate correlation between entailments among geometrical and theological properties, on the one hand, and entailments among intentional properties, on the other. Now we can deny that we know every intentional property of our clear and distinct perception and hence, deny that we know everything that is in our clear and distinct ideas, like God.

Can a non-circular formulation of the argument in the Fifth Meditation be given (while remaining charitable to Descartes)? Jeffrey Tlumak presents one attempt at this. The difference comes at a meta-presentation of the certainty. Tlumak defines *epistemic principles* as principles which speicfy the conditions under which propositions are justified. A foundationalist must have two types of such epistemic principles—*Generation* (those which tell us that certain propositions are justified outside of their logical relations to other propositions) and *Transmission* (those that tell us that if so-and-so proposition is justified, then such-and-such propositions are also justified in lieu of their logical relations to the former). For Descartes,

> For all p, if I clearly and distinctly perceive that p, then I am certain that p

is the Generation principle and

> If (p is justified for S, and p entails q, and (p entails q) is justified for S), then q is justified for S.

is the Transmission principle. Tlumak then gives an explanation of the procedure of Descartes' proof.

How is Descartes' innatism to be understood? The standard interpretations are

1. the *reflective theory*
2. the *anamnesis theory*
3. the *transcendental theory*—innate ideas are achievable dispositions or structures of the mind.
4. the *hidden-by-intellectual-debris theory*

All of them seem to work well with the Meditations. Perhaps a more complete epistemological account of the theory of innate ideas lies elsewhere in Descartes' oeuvre.

2.5.6 The Sixth Meditation

In the final meditation, Descartes aims to show the distinction between the mind and the body, to establish that reason is capable (and almost in a sense *ought* to) of deciphering the natural world. Although not getting into the details like in his later books (especially *The Passions of the Soul*), Descartes gives a wide reaching argument for the distinction between the mind and the body. The usual objections given to substance dualism, mainly the one about causation between the two substances was known to Descartes.
Key points about Cartesian substance dualism to keep in mind:

1. Cartesian dualism is *strong* as substances are things which exist independently.

2. The mind and the body do not participate in some part-whole relationship, they exist independently of one another.

3. Consciousness in the Cartesian sense is *ontologically subjective*—it exists only as perceived by the agent.

4. Consciousness/Mind in Descartes is to be understood as a meta-level of awareness meaning that animals (which don't have souls according to Descartes) are not necessarily not sentient. To remove the double negative, while animals might not have souls or the mind, it does not follow that animals are not sentient, or that they cannot feel pain or that they are indistinguishable from other physical bodies.

Gilbert Ryle's attacks or at least the metaphor, "Ghost in the Machine" seems to not hold as violently as presented. Descartes was not only aware of the quite problematic distinction of the mind and the body but also overtly rejected this "Ghost in the Machine" analogy. He says

> Nature . . . teaches me, by . . . sensations of pain, hunger, thirst and so on, that I am not merely present in my body as a sailor is present in a ship, but that I am very closely joined . . . with it, so that I and the body form a unit. If this were not so, I, who am nothing but a thinking thing, would not feel pain when the body was hurt, but would perceive the damage purely by the intellect, just as a sailor perceives by sight if anything in his ship is broken. Similarly, when the body needed food or

> drink, I should have an explicit understanding of the fact, instead of having confused sensations of hunger and thirst. For these sensations . . . are nothing but confused modes of thinking which arise from the union and, as it were, intermingling of the mind with the body.

Decartes gives two arguments for dualism. One is the conceivability argument. The first summarizes that one can clearly and distinctly perceive that the mind is a thinking but unextended thing, and clearly and distinctly perceive that the body is an extended but unthinking thing, and since everything clearly and distinctly perceived is known to be true, one can know that the mind is really distinct from the body. The second can be summarized as such: there exists a certain unique unity of consciousness which is lacking in physical bodies, i.e., the mind is essentially indivisible, whereas as any extended body is essentially divisible. There exists a host of objections to both these arguments, mainly whether they are question begging (indivisibility has to be shown not assumed and the clarity is to be shown not pointed at in previous meditations where it arguably does not exist).
Finally, Descartes rounds off the *Meditations* by saying

> Nor ought I have even the least doubt regarding the truth of these things, if, having mustered all the senses, in addition to my own memory and my intellect, in order to examine them, nothing is passed on to me by one of the sources that conflicts with the others. For from the fact that God is no deceiver, it follows that I am in no way mistaken in these matters. But because the need to get things done does not always permit us the leisure for such a careful inquiry, we must confess that life of man is apt to commit errors regarding particular things, and we must acknowledge the infirmity of our nature.

2.6 Correspondence with Elisabeth

2.7 *The World* and *Treatise on Man*

In 1629-1633, Descartes wrote The World and Treatise on Man but did not publish it because of the fear of retaliation by the Roman Inquisition. *The World* and *Treatise on Human* were first published 14 years after Descartes'

death. We know that both are a single work and about the fear of the Roman Inquisition as he mentions this in the correspondence with Mersenne.

The topic that Descartes intends to deal with in this book is that of light. He firstly questions whether the idea of light (the sensation of light) and what is in the objects that produces this are similar or not. He likens this example to words and their signification. He proposes a counter example to the simple understanding that the sensations are similar to the objects. If one claims that sound is the vibrations of the air, then the sound we hear must be somehow similar to the vibrations and must make us conceive of these vibrations which is ludicrous. He gives the example of touch as well, the idea of tickling that is created in the mind of a child on whom we are moving a feather does not resemble the feather itself.

What does fire consist in? When fire burns, it separates minute parts of the wood and sets them in motion. Since, it is not clear how one body could cause motion except through its own motion, Descartes thinks that the body of the flame consists of minute particles which move very violently and rapidly. He similarly to a few later philosophers says that the sensation of heat consists of tickling for low heat and a pain for higher heat, this is due to the violent motion of the flame body.

Air is always agitated, so is the sea and buildings fall into decay and so do plants and animals. hence, he says that the flame is not the only thing with minute particles in ceaseless motion, all bodies are such, they just differ in the degree of rapidity they move with (how violently they move). He even gives a version of the principle of conservation of momentum saying "I find by my reasoning that their motions cannot possibly ever cease, or even change in any way except in respect of their subject. That is to say, the virtue or power of self-movement found in one body may indeed pass wholly or partially into another and thus be no longer present in the first; but it cannot entirely cease to exist in the world."

Descartes then analyses air and asks why we don't perceive it as we do other material bodies. He claims that air is also made out of the same matter as that of other fluids and solids.He says that if anything vacuum must exist in solids rather than fluids (consider a jar full of powder vs a jar of water). He claims that no vacuum is created in movement, that movement is ultimately circular and that when one body moves into another's place, another one fills the place of the former. Curiously air which is ever present is so little perceivable. He adds the examples of the heat of our hearts and the weight of our clothes to this list. It is certain that w e cannot perceive any body by

our senses unless it is the cause of some change in our sense organs.

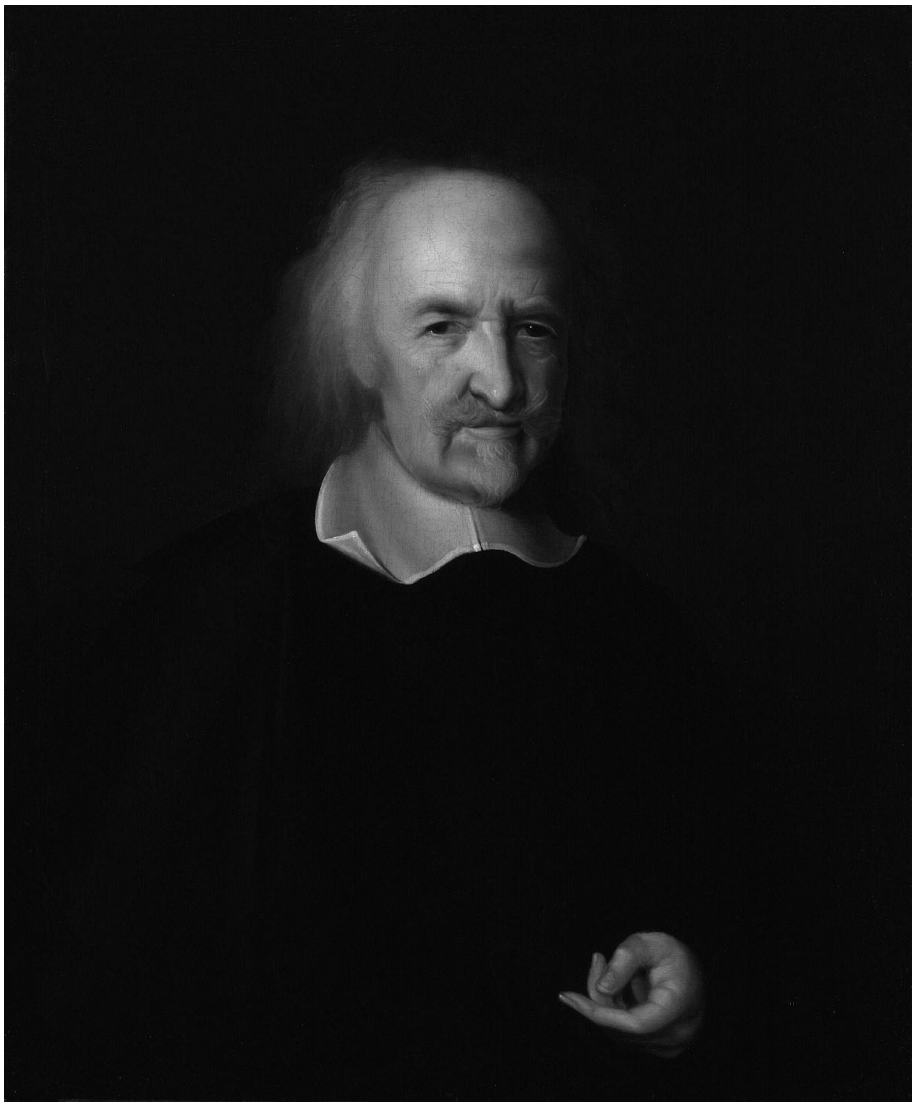
> But regarding the objects which continually touch us, if they ever had the power to produce any change in our senses and to move some parts of their matter, they must have moved these parts, and thereby separated them entirely from the others, at the outset of our life; and in this way they can have left there only the parts which completely resist their action and by means of which they cannot be perceived by our senses in any way. From this you can see that it is no wonder that there are many spaces about us in which we do not perceive any body by our senses, even though they contain no fewer bodies than the spaces in which we perceive the most.

He wishes to explain all properties of bodies only through matter, its motion, size, shape and arrangement of its parts. He distinguishes between the forms of matter, like fire, air and earth, through the intensity of the motion of its constituents.

> The first is that each individual part of matter always continues to remain in the same state unless collision with others constrains it to change that state. That is to say, if the part has some size, it will never become smaller unless others divide it; if it is round or square, it will never change that shape without others forcing it to do so; if it is stopped in some place, it will never depart from that place unless others chase it away; and if it has once begun to move, it will always continue with an equal force until others stop or retard it.

2.8 The *Principles of Philosophy*

2.9 The *Passions of the Soul*



Chapter 3

Hobbes

> Hobbes's *Leviathan* is the greatest single work of political thought in the English language.
>
> *John Rawls*

3.1 Biographical Sketch

3.2 Selections from the *Leviathan*

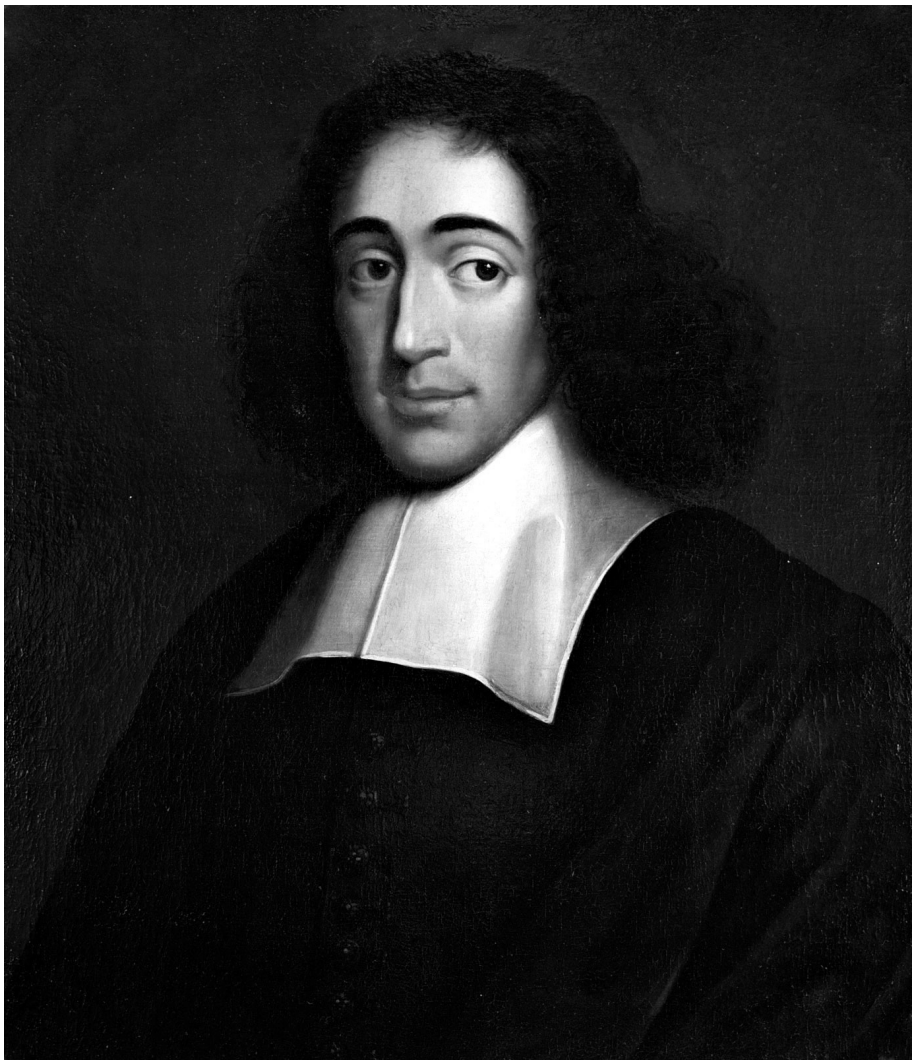

Margaret Daughter
to Thos Lucas Esqr of
Essex 2d wife to Wm
Duke of Newcastle

Chapter 4

Cavendish

4.1 Biographical Sketch

4.2 Philosophical Letters



Chapter 5

Spinoza

> Every philosopher has two philosophies: his own and Spinoza's.
>
> *Henri Bergson*

5.1 Biographical Sketch

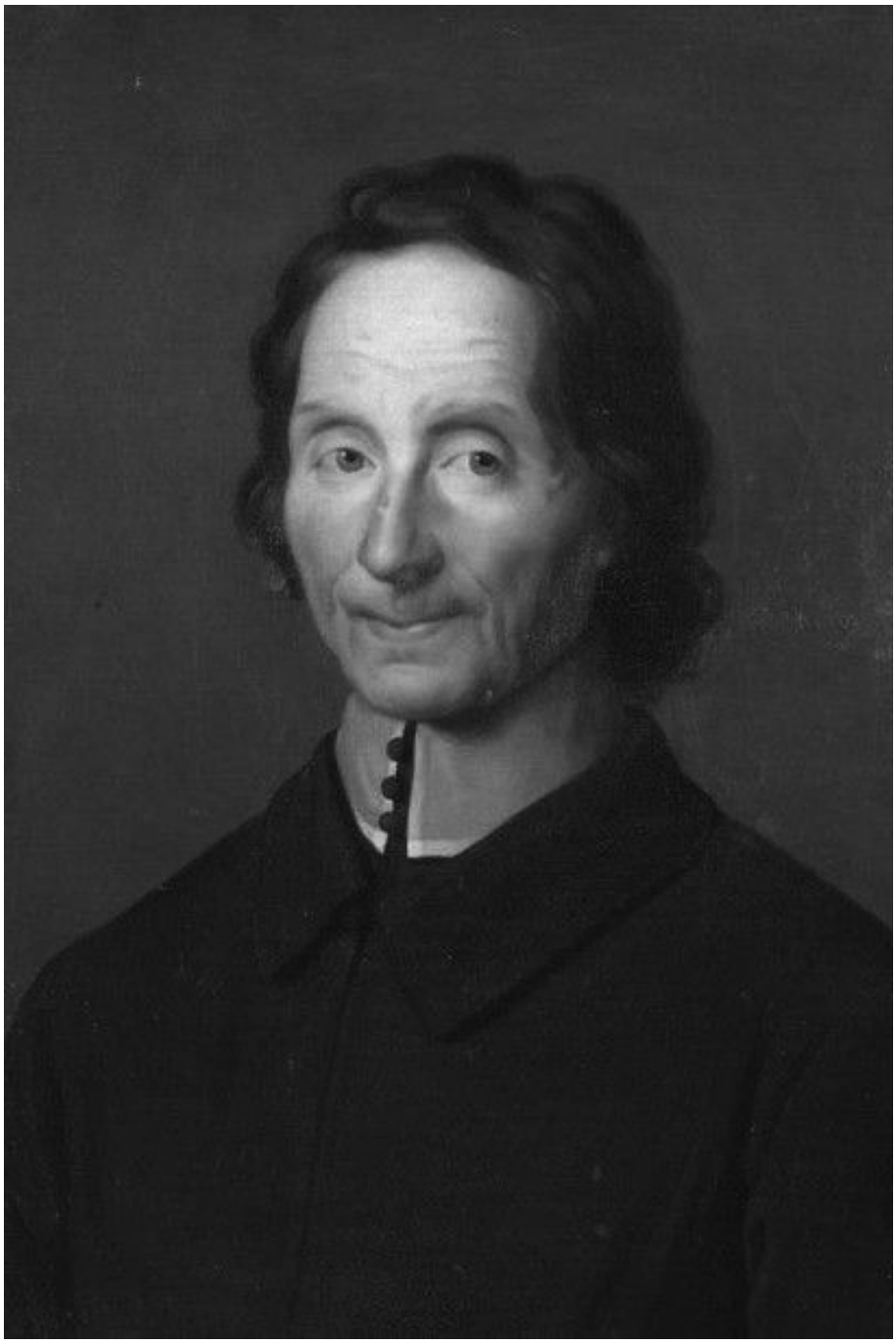
5.2 Heresy and Excommunication

5.3 The Silent Lens-Grinder Out of History

5.4 The *Ethics*

5.5 *Tractatus Theologico-Politicus*

5.6 *Tractatus de Intellectus Emendatione*



Chapter 6

Malebranche

6.1 Biographical Sketch

6.2 The *Search After Truth*

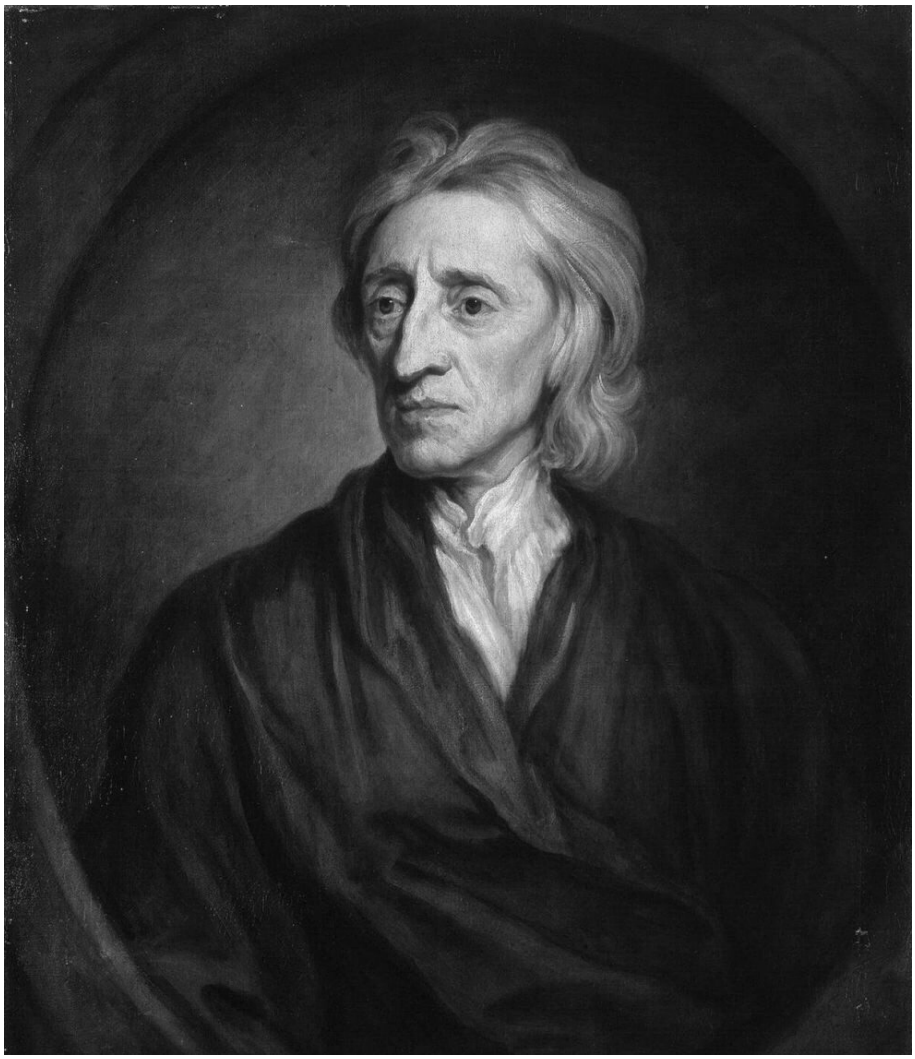
6.3 *Treatise on Nature and Grace*

Chapter 7

Conway

7.1 Biographical Sketch

7.2 The *Principles of the Most Ancient and Modern Philosophy*



Chapter 8

Locke

> My method of achieving happiness was discovered by one of the despised race of philosophers, namely, John Locke. You will find it set forth in great detail in his book on education. This is his most important contribution to human happiness; other minor contributions were the English, American, and French revolutions.
>
> *Bertrand Russell*

8.1 Biographical Sketch

John Locke was born on 29 August 1632 in Wrington, Somerset. He was a contemporary of both Spinoza and Leibniz. He was born to Puritan parents in England. The conflicts between the Protestants, Anglicans and Catholics was turning into a civil war in the 1640s. Then came the abolishment of the monarchy, the House of Lords and the Anglican Church after the fall of Charles I. The death of Cromwell brought back the monarchy through the restoration of Charles II. Locke's father was a lawyer in the early stages of the Civil War. In the patronage of Locke's father's commander, John

Locke had been given access to an excellent education. Locke went to Christ Church, oxford in the autumn of 1652 at age twenty. Locke had been educated initially in the Aristotelian tradition as was standard in Oxford at the time. However, he also studied other philosophy. John Wilkins, Cromwell's brother in law, had become Warden of Wadham College. The group around Wilkins was the nucleus of what was to become the English Royal Society. The Society grew out of informal meetings and discussion groups and moved to London after the Restoration and became a formal institution in the 1660s with charters from Charles II. The Society saw its aims in contrast with the Scholastic/Aristotelian traditions that dominated the universities. The Society wished to work on and study nature through experiments rather than books (*Nullis In Verba*). It was in this group that Locke was introduced to medicine.

In 1656, John Locke received his B.A. In June of 1658 Locke qualified as a Master of Arts and was elected a Senior Student of Christ Church College. He taught Greek and Rhetoric for a few years before deciding to become a doctor. The Oxford scientific group now had Robert Boyle at its helm. Boyle was a mechanical philosopher. Locke had been exposed to Boyle's and the Society's mechanical philosophy and also Descartes' philosophy. Locke saw an alternative to the Aristotelian/Scholastic tradition in both of them. He tried to incorporate both into his own philosophy. It is contextually interesting to realise that the Royal Society had Newton, Locke and Boyle as its main founders. In the Royal Society, Locke had found a rich network to the biggest names in science and philosophy at the time, reading the works of and consulting Newton, Huygens, Boyle, Syndenham (his tutor) and others. In 1666 Lord Ashley, one of the richest men in England, came to Oxford in order to drink some medicinal waters there. He had asked Dr. Thomas to provide them. Thomas had to be out of town and asked Locke to see that the water was delivered. As a result of this encounter, Ashley invited Locke to come to London as his personal physician. In 1667 Locke did move to London becoming not only Lord Ashley's personal physician, but secretary, researcher, political operative and friend. Living with him Locke found himself at the very heart of English politics in the 1670s and 1680s.

Ashley persuaded Charles II to create a Board of Trade and Plantations to collect information about trade and colonies, and Locke became its secretary. Locke was the collection point of all information about the trades and colonies of England around the world. Locke was involved in the drafting of the fundamental constitutions of the Carolina colonies. Locke was also

involved in the writing of legal works for the coinage crisis in England. In 1674 after Shaftesbury had left the government, Locke went back to Oxford, where he acquired the degree Bachelor of medicine, and a license to practice medicine, and then went to France. While Locke was in France, Shaftesbury's fortunes fluctuated. In 1676 Shaftesbury was imprisoned in the tower. His imprisonment lasted for a year. In 1678, informers (most notably Titus Oates) started coming forward to reveal a supposed Catholic conspiracy to assassinate the King and put his brother on the throne. This whipped up public anti-Catholic frenzy. In the public chaos surrounding the sensational revelations, Shaftesbury organized an extensive party network, exercised great control over elections, and built up a large parliamentary majority. Slowly the panic grew off and Shaftesbury was captured and put in the tower again in 1681. He was tried and acquitted. Locke stayed in England until the Rye House Plot (named after the house from which the plotters were to fire upon the King and his brother) was discovered in June of 1683. Locke left for the West country to put his affairs in order the very week the plot was revealed to the government and by September he was in exile in Holland.

While in exile Locke finished An Essay Concerning Human Understanding and published a fifty page advanced notice of it in French. While Locke was in Holland, the King Charles II had died and his brother James II became the King. James II alienated most of his supporters and William of Orange was invited to bring a Dutch force to England. After William's army landed, James II, realizing that he could not mount an effective resistance, fled the country to exile in France. This became known as the Glorious Revolution of 1688. It is a watershed in English history. For it marks the point at which the balance of power in the English government passed from the King to the Parliament. Locke returned to England in 1688 on board the royal yacht, accompanying Princess Mary on her voyage to join her husband. After his return from exile, Locke published An Essay Concerning Human Understanding and The Two Treatises of Government. Locke took up residence in the country at Oates in Essex, the home of Sir Francis and Lady Masham (Damaris Cudworth). Locke had met Damaris Cudworth in 1682 and became involved intellectually and romantically with her. She was the daughter of Ralph Cudworth, the Cambridge Platonist, and a philosopher in her own right. Locke and Lady Masham remained good friends and intellectual companions to the end of Locke's life. During the remaining years of his life Locke oversaw four more editions of the Essay. In 1696 the Board of Trade

was revived. Locke played an important part in its revival and served as the most influential member on it until 1700. During these last eight years of his life, Locke was asthmatic, and he suffered so much from it that he could only bear the smoke of London during the four warmer months of the year. Locke plainly engaged in the activities of the Board out of a strong sense of patriotic duty. After his retirement from the Board of Trade in 1700, Locke remained in retirement at Oates until his death on Sunday 28 October 1704. Locke never married nor had children.

8.2 An *Essay Concerning Human Understanding*

An Essay Concerning Human Understanding was first published in 1689. Contextually, this placed his empiricism although not called that at the time after that of Bacon and Hobbes[1]. Unlike the *Two Treatises* and *A Letter Concerning Toleration*, the *Essay* was published under his own name. The *Essay* remains one of the 'big three modern British Empiricist' works. In the *Essay*, Locke is concerned with the Understanding — the most elevated faculty of the soul. The 'Epistle to the Reader' describes the history of the *Essay*– Locke had sat down to discuss many subjects much different from the subject of the *Essay*, but a lot of disagreements had popped up and they were puzzled about moving ahead. So Locke proposed that they had taken the wrong direction and that before we inquire into nature, we must inquire into ourselves and see what our abilities and objects of understanding are. This was the subject of the *Essay*, to lay out and analyse the "Limits of Human Understanding". He says

> This therefore being my purpose – to inquire into the original, certainty and extent of human knowledge, together with the grounds and degree of belief, opinion, and assent – I shall not at present meddle with the physical consideration of the mind; or trouble myself to examine wherein its essence consists; or by what motions of the spirits or alterations of our bodies we come to have any sensation by our organs, or any ideas in our understandings; and whether those ideas do in their formation, any or all of them, depend on matter or not.

[1]Newton had published the *Principia* three years ago.

Locke's method is laid out by him in the Introduction as such

1. Inquire into original of those ideas which man observes and of which man is conscious to himself; and the ways the understanding comes to be furnished by them.

2. Show what knowledge the understanding has by those ideas; and the certainty, evidence and extent of it.

3. Inquire into the nature and grounds of faith and opinion.

Locke shared the individualistic spirit of Descartes, explicitly politically, he was a revolutionary and defended people's right to revolt and the right to private property. Any holistic description of Locke's motivations to write the Essay must try to show the inherent socio-political direction that Locke seeks to preserve (by clearing away dogmatic claims of moral and political duties); unlike that of Descartes — who had a scientific interest in certainty — and Spinoza — who had an ethical interest. He was the spokesperson for the Royal Society whose motto is "On no man's word". His philosophy reflects this responsibility that we have to ourselves about what we believe in and why. Locke's political and philosophical spirit have been described as *the* spirit of the Enlightenment.

To give an overview of the *Essay*, Book I deals with the rationalist innate ideas thesis and seeks to show its incoherence. Book II seeks to show that sensation and reflection (not *a priori* introspection) provides all the objects of our understanding. Book III inquires into the function language plays in communicating ideas. Book IV finally seeks to show how reason and abstraction can create knowledge from ideas, culminating in a proof of the existence of God.

8.2.1 Book I

Locke's resistance to rationalism can be understood in this way. He wishes to show that the thesis of innate ideas is incoherent. Then he wishes to show how we can construct a philosophical basis for understanding which does not rely on innate ideas, thereby presenting a challenge to the innatists to justify the existence of something which is shown to be incoherent and more importantly unnecessary. The real force of Locke's arguments is in the second half. This is why he at best problematizes the notion of innate ideas in Book I. The argument Locke is trying to problematize works as follows

1. Certain principles enjoy universal assent.

2. The only explanation for said principles is innatism.

3. Hence there are innate principles.

In this book, Locke tries to show that (1) is false. But this would not mean that (3) is also false, only that this argument is unsound since the premises are false. Locke characterises the second step as problematic. Locke works in a very witty fashion, always seemingly giving the counter arguments the benefit of the doubt and charitably letting the counter arguments to proceed as far as possible before knocking them down. Locke begins by asking what the relationship between universal assent and innate principles is. Clearly, if there are innate principles, then they must enjoy universal assent. But the existence of principles of universal assent does not necessarily mean that there exist innate principles. Thus, the bigger burden of showing that the only explanation for "principles of universal assent" is innatism lies on the innatist.

'Children and idiots' serve as a counter example of principles with universal assent for Locke. Children especially play an important role which is an interesting development in the philosophical world where Locke is presenting a 'historical, plain method'; knowing how we *come* to think certain things is important to understanding Understanding[2]. Children and idiots do not assent to ideas which might seem obviously true to us. The examples he gives are "*Whatsoever is, is*" and "*It is impossible for the same thing to be and not to be*". Hence, the innatist must move to a modified position. One of two things must happen, the thesis must be modified as a dispositional one; *There are certain principles to which eventually everyone will assent* or *One would assent to certain principles if we arrived at the idea through the use of reason* or *One would assent to certain principles if they understood the terms of the principle*. At this point, Locke says that these principles don't look innate but seem to be acquired. If reason has to be applied to arrive at an principle, then how is it innate? Isn't the whole job of reason to uncover or *acquire* certain principles from other ones? Locke presents the counter to this which the innatist might present: The innate principles lie dormant in everyone. Here is a real problem. How can ideas lie dormant? Where are they? For the property of ideas is to be thought; to exist they must exist

[2]Locke had also an interest in pedagogy and education

in some mind. Thus it is argued by the innatist that they *can* be grasped, that is, they are the principles which we are capable of grasping. In which case, innate ideas are not very special, for we are capable of grasping any truths, hence all principles lie in this category removing the special status that might have been donated to the innatist, i.e, the dispositional account cannot properly delineate between all ideas and innate ideas. This holds for all three of the dispositional modifications that he presents. This rejection of the view of the mind as pre-programmed or implanted with certain ideas, and the affirmation of the emptiness of the human mind at birth is what Locke calls the 'blank slate' or '*tabula rasa*'. A stronger reading of Locke would look at Locke as doing something more. For the stronger reading, we would read Locke as presenting the following argument:

- A1) There are no principles which enjoy universal assent.
- A2) If (there are innate ideas), then (there exist certain principles which enjoy universal assent).
- A3) There are no innate ideas. (Modus Tollens on A1, A2)

Now it is not clear if A1 and A2 are true. The entirety of Book I is dedicated to persuade the reader of their truth. Throughout the course of the book, Locke seems to argue against the existence of innate principles. It is not quite clear how he brushes away the plausibility of the existence of innate "ideas" strictly as concepts or mental representations and not full-blown propositions. This topic comes up in the last chapter of Book I where Locke mainly dissects why "God" is not an innate idea. He also looks at identity and impossibility and claims that the lack of clarity and distinctness of these ideas is evident in the lack of universal assent as to their meaning and definitions.

8.2.2 Book II

Book II of Locke's *Essay* sets out to show and reformulate material knowledge about the world in the anti-innatist perspective. A large part of the book is devoted to carefully distinguishing between kinds of ideas and the methods of generation of said ideas.

The idea is the immediate *object* of thinking. We must think of ideas as sorts of mental images. For Locke, all ideas come from two sources: *Sensation* and *Reflection*. Our senses (conversant with particular sensible objects),

convey into the mind distinct perceptions of things like whiteness, coldness, softness etc. SENSATION, (outer sense?) is the great source of most ideas we have, depending wholly on our senses, and derived by them to the understanding. The other source of ideas is the perception of the operations of our own mind; REFLECTION (inner sense?). When a person is born, they are like a blank slate, with no ideas. Then, reflection cannot happen as there is nothing that the mind can operate on (which operations can be perceived). Reflection only generates new ideas by working on already existing ideas come either from sensation or recursively from a previous reflection. Ultimately, the first idea must always lie in sensation.

Locke then distinguishes between *simple* and *complex* ideas. The senses produce ideas in our minds which are pure and unmixed. The softness and warmth that is felt from a piece of wax, although felt simultaneously, are separated into "softness" and "warmth". Locke says

> And there is nothing can be plainer to a man than the clear and distinct perception he has of those simple ideas; which, being each in itself uncompounded, contains in it nothing but *one uniform appearance*, or *conception in the mind*, and is not distinguishable into different ideas.

Here lies the basis for the distinction. Simple ideas are unified phenomenologically. These simple ideas are later compounded into complex ideas. But for there to be any complex ideas at all, there needs to be these irreducible, unanalyzable, homogeneous, unified simple ideas. In this regard, Locke is a *foundationalist*. He shares this with Descartes. He also shares the notion that falsity only arises from complexity, simple ideas are not false. Unlike Descartes, simple ideas are not false not because they are innate but because they have their origin in the senses. Why must we trust these senses? For the reason that simple ideas are cause in us by external things. Thus, we must think that they are how the external objects are (or at least are in some proper relation with them). Thus, simple ideas are a 'sign' or a result of their causes. For Locke, the relation between the object and its sensation (idea) constitutes the basic representative relation but is not a part of the content of the idea. Locke says that simple ideas can come from four sources, namely

- From *one sense* - colour, solidity, sound, taste, smell.
- From *multiple senses* - extension, shape, motion, rest.

- From *reflection* - perception, willing.

- From *both* sensation and reflection - pleasure, pain, existence, unity, power, succession.

Qualities, for Locke, are powers of the objects to produce a change in something. They are causal properties of objects. Here, Locke begins to explain the primary-secondary quality difference. He says that primary qualities are utterly inseparable qualities of bodies. Primary qualities are powers of bodies where the ideas they form are "resemblances" of the qualities. Secondary qualities are which in truth are nothing in themselves but the power to produce various sensations in them through primary qualities. The ideas they produce have nothing to "resemble". (How do ideas resemble powers? When Locke says 'are nothing in themselves' what does he mean, for qualities are nothing in themselves except for being a power to produce certain sensations? This resemblance issue is cleared if we understand ideas as intentional objects of thought. Then asking what an idea resembles is asking what a painting resembles.) It seems that Locke wishes to introduce a distinction between an inquiry into our ideas as they are in the mind and an inquiry into their natural causes. The primary-secondary quality distinction is in the latter. Remember that Locke does not say that primary and secondary qualities are ideas but that our ideas are *of* primary and secondary qualities, both of which are powers. A relevant question we might ask Locke is how might one tell whether a quality is primary or secondary?
Complex ideas are are made when the mind exerts its active power over its simple ideas. Complex ideas are of three things, namely,

- of *modes* :- Ideas of Modes are complex ideas which do not contain in them the supposition of subsisting by itself but are considered affections or modification of substances.
  simple modes - are variations or combinations of the same simple idea - for example, a dozen is the combination of multiple distinct units.
  mixed modes - are combinations of simple ideas of several kinds - for example, beauty is a certain combination of colour and figure.

- of *substances* :- Ideas of Substances are combinations of simple ideas as are taken to represent distinct *particular* things subsisting by themselves.
  single substance - are ideas of substances as they exist separately - for

example a man or a cow.
collective substance - are ideas of substances as put together - for example an army of men or a herd of cows.

- of *relations* - Ideas of Relations are ideas which consist in the consideration and comparing one idea with another.

Talking about Locke's empiricism must take into account the fact that he was in the most proper sense an *concept-empiricist*, namely he believed that the conceptual content of all our ideas came from experience. We do not have any conceptual content *a priori*. But this does not mean that we cannot have *a priori* statements, only that the content of such statements also ultimately is derived from experience. Locke, then begins to talk about a few complex ideas in detail. The most important examples he discusses are free-will, substance and personal identity.

- *Substance* - the mind has a lot of simple ideas, conveyed into the mind by exterior things. According to Locke, unlike Descartes, our idea of substance is confused and complex. Locke says that the obscure idea of substance we have in general is a supposition of something that we don't know what *supports* the qualities which are capable of producing ideas in us. This something we give the name substance as this is what supports qualities, substantia. We notice a set of qualities going to together and suppose that they inhere in one thing. It must be noted however, that Locke thinks that our idea of substance is obscure and unhelpful. It does not explain anything as we must ultimately concede to a skeptic that we know not what substance actually is, for all we perceive are ideas of its qualities. This is also the case for minds.

- *Free-Will* - John Locke's discussion of the problem of free-will is centered around the notion of a power. For Locke, power can be active or passive – the capacity to bring about change and the capacity to suffer change. In Locke's terminology, the *Will* is the power that we have (or our mind has) to consider or refrain from considering an idea or to prefer a particular motion of ourselves. *Volition* is the exercise of this power. If and only if a person does what they will, they are acting *voluntarily*. However, this is not enough for *freedom*. If one can do or not do some act, then they are free or at liberty. When this doesn't obtain, one is necessary. Now we notice that will is a capacity or power and so

is liberty. For Locke, asking whether the will is free is nonsense, to ask whether a power has a power. The problem is dissolved. Actions are categorized into these new classes, voluntary and free, voluntary but not free and necessary.

- *Personal Identity* - For Locke, identity depends on the substance. God is of course only one, as God is eternal, unchanging and all perfect etc., there is only one such God. Finite material bodies also follow the obvious criteria of being continuous through time and have no quantitative change to be identical. But Locke then comes to talk about finite spirits, i.e. people etc., and their identity. Since identity requires us to ask what things we are comparing, the criteria for identity may be different for different types of objects. In this reading identity simpliciter might not carry much weight. Locke would say that say that the answer to the Ship of Theseus question is to ask what they mean by ship, if it is something that functions as a ship, then the new one is the Ship, and if they are interested in the histories of the objects, then the old one is the Ship. For Locke, personal identity then requires what it is to be a person. He says that "a thinking intelligent being, that has reason and reflection, and can consider itself as itself, the same thinking thing, in different times and places; which it does only by that consciousness which is inseparable from thinking". This criterion of identity for Locke is then, unbroken stream of consciousness. X is a person at time T and place A. Y is a person at time T+t and at place B. X and Y are said to be identical persons if Y can in fact truly remember being (X at time T and place A) at time T+t. This definition gives a certain practicality to the understanding of personal identity in court for example.
  However, Thomas Reid presents a counterexample to this definition by showing how it violates transitivity of identity. Consider a child who steals apples from an orchard at time T. Say that he grows up to be a man who serves as a solider at time T+t. Now say that he remembers that he stole apples from the orchard at time T. Now let further that the man grows up to be an old general at time T+t+x. Say that he remembers being a solider at time T+t but not stealing apples at time T. Now, it happens that the soldier is identical to the child, the old general is identical to the solider but the old general is not identical to the child. This violates the transitivity of identity.

8.2.3 Book IV

Book IV of the *Essay* is dedicated to discussing knowledge, namely its definition, nature and scope. John Locke says that knowledge is the perception of the connection, agreement and disagreement between our ideas. The mind has only access immediately to its objects of understanding, that is its ideas. This is why Locke believes, that knowledge must only consist in the perception of obtaining or non-obtaining of relations of ideas. In this sense, grasping the connections of ideas is central to the Lockean account of knowledge. This may or may be considered a part of experience. For once you have the idea of blue and that of red. Does it consist of an experience to perceive that red is not blue? If not, then Locke does not seem to be a knowledge-empiricist. Knowledge may have non-empirical grounds, i.e., *a priori* knowledge seems to be possible. The account away from knowledge empiricism is supported by Locke's emphasis on *intuitive knowledge*. This is the most clear and direct source of knowledge–its highest degree–where we directly grasp the connections between our ideas. It is irresistible knowledge. The second degree is *demonstrative knowledge*–where the connections of ideas are not immediately perceived but require a few intermediate steps (each intuitive) to arrive at the final connection. This form of knowledge is not the also certain and clear but does not gather immediate assent. To the proper level of certainty, only these two forms of (*a priori*) knowledge exist. Anything else is not certain and in the realm of probability. Unlike Descartes however, Locke does not banish this (even for the time being). *Sensitive knowledge* consists of beliefs about finite objects which exist without us and are usually highly probable (but not as certain as the previous forms of knowledge). There are three ways of achieving knowledge: intuition, demonstration and sense perception. He tries and fails to form a connection between the external world and the sensitive knowledge as he tries to use the fact that because ideas are caused by external objects, that they resemble them. This of course is not true, question begging and actually maybe even in conflict with what Locke has said before. He adds to the fact that sense perception of certain objects is involuntary, that they must be true in some sense. Again, this is not true either, consider the Cartesian demon. He adds to this by talking of how our senses concur in their report of the external world. We feel the that of a fire, see its light, hear its crackle, smell smoke etc. But this again relies on a certain unity of the perception, for we presume that all these sensations pertain to the same unknown *one* thing. Ultimately, I believe that the best

way to treat this skeptical challenge to Locke's sensitive knowledge is to take the pragmatist way out, for it is relevant to act as if our senses give actual information about the world, questioning whether my shirt is actually on fire or if it is only some metaphysical ghost's prank is irrelevant when it causes direct pain. We may as well act as if our senses are reliable. Something similar to this is said by Locke when he claims that it does not matter whether we are dreaming or not for our happiness and misery exist in both these cases and beyond this we have no concern to know or not to know.

8.3 *Two Treatises of Government*

Chapter 9

Leibniz

> When one compares the talents one has with those of a Leibniz, one is tempted to throw away one's books and go die quietly in the dark of some forgotten corner.
>
> *Denis Diderot*

9.1 Biographical Sketch

On the first of July, 1646, in Leipizig, Germany, Gottfried Wilhelm Leibniz was born. He was born to an elite family whose parents were both professors. His father passed away in 1652, leaving behind one of the most extensive libraries of 17^{th} century libraries to Gottfried. He read these books copiously; he grew up to be highly well-read in the broadest fields of knowledge. In 1661, Leibniz began formal education at the University of Leipzig. His education consisted of mainly Scholastic and Renaissance humanist philosophy. In Leipzig, he published his first philosophical dissertation *On the Principle of Individuation* under the supervision of Jacob Thomasius. From 1663 to 1666, Leibniz dedicated himself to study of legal matters and applied to a law doctorate at age 20. He studied law at University of Altdorf and published his first original mathematical treatise *Dissertation on the Art of Combinations* in 1666 which sketched a plan for a universal charateristic, a sort of

alphabet for human thought in general and a logical calculus for the same. Before age 21, Leibniz published original works in logic and law. In 1668, Leibniz joined the service of the elector of Mainz. In Mainz, Leibniz worked on writing works of politics. He also published in theology with *Catholic Demonstrations*, an attempt to provide a foundation for the reconciliation of Catholicism and Protestantism. Here, Leibniz found some time to study the moderns and also became interested in natural philosophy, publishing the *New Physical Hypothesis* which was however considered an amateur work. THis was all going to change, in 1672, Leibniz was given the opportunity to travel across to Paris on a diplomatic mission by the Elector of Mainz. THis allowed him to travel across to Paris and London and meet the greatest minds of Europe and form their correspondences. A lot of Leibniz's work is buried in these correspondences. He stayed in Paris for four years and met Arnauld, Malebranche, and Huygens in this trip. Huygens was impressed by Leibniz and took Leibniz as his student and taught him the recent developments in physics, mathematics and philosophy. Leibniz also had access to the unpublished manuscripts of Descartes and Pascal through this network. According to Leibniz, the work of Pascal influenced his own mathematical work, namely differential calculus. In this time, Leibniz also designed a calculating machine able to perform addition, subtraction, multiplication, and division. He went to London in 1673 and met the members of the Royal Society. His employer having passed away, Leibniz moved to Hanover in 1676 to become a librarian for the Duke of Brunswick. On the way to Hanover, he stopped in Amsterdam and met with Spinoza (three months before Spinoza's death) and discussed Spinoza's unpublished *Ethics*, Cartesian physics and the ontological argument. Leibniz did some more travelling in his lifetime but mostly stayed in Hanover. After the death of the then Duke of Brunswick, he worked for his brother (Ernst August) and after his death, Leibniz worked for the latter's son who would become George I of England. He was not so close to them but he was good friends with Sophie August, the wife of Ernst august and younger sister of Princess Elisabeth of Bohemia. Leibniz was a master correspondent and had exchanged letters with over 1100 people. Leibniz's spent his final days in a debate with Newton's followers over the priority dispute of calculus. He passed away on November 14, 1716.

9.2 Mathematician, Lawyer, Physicist, Philologist, Diplomat, Philosopher

9.3 *Discourse on Metaphysics*

The *Discourse on Metaphysics* is the first complete expression of Leibniz's philosophy. It was written during the winter of 1685-686. Leibniz was 39 years old. The system that can be known as distinctively Leibnizian is first expressed in this work. The discourse is divided into 37 sections, each section has a short heading. Leibniz sent these headings to Arnauld to give Arnauld a rough idea of what the *Discourse* was about. Thus began the Leibniz-Arnauld Correspondence. The *Discourse* was only posthumously published in 1846 by C. L. Grotefend. The discussion following is based on the division of sections by Leibniz.

1. **Divine Perfection** - Leibniz does not present a proof of God anywhere in the *Discourse*, God is presupposed and the discussion really focuses on the kind of being that God is. The most common definition, and Leibniz's definition himself, asserts that God is an absolutely perfect being. God is absolutely qualitatively and quantitatively perfect. In fact, God has *all* the perfections. But first, we must understand what perfection is. Leibniz distinguishes between things that allow for perfection and those that don't. For example, numbers don't allow for perfection, there's an infinity of them, the infinity never finishes, it involves a contradiction to suppose the largest number, similarly for size/shape. However, no such contradiction arises out of knowledge or power. In this sense, he gives a necessary condition for perfection, a property that can have a highest degree. Moreover, Leibniz's conception of perfection involves positive intrinsic properties that can have a highest degree. What Leibniz must mean is that instantiating a number or figure cannot make it perfect with respect to number or figure. One might plausibly say that since these are not of the nature to be capable of perfection, God lacks them. For example, God does not have a shape. However, there is a problem, since God is one. Obviously God may have some properties which are extrinsic. Gonzalo Pereya gives the example of "not being believed in by millions of people", but these are extrinsic properties, God's perfections are intrinsic positive

properties. Leibniz says that two things follow from this discussion of divine perfection

- God acts perfectly, both metaphysically and morally. (from omnipotence and omniscience?)
- The more one is informed of the work of God, the more we find them excellent.

2. **Against those against God's goodness** - In the second section, Leibniz wishes to argue that God' work are good without having to refer to their cause to judge their goodness. He argues contra Descartes, from scripture that since God contemplated his works after creation and found them good, it is good; this is an anthropomophized metaphor to express that we can too contemplate God's work and find it to be good without having to refer to the source of its goodness to its creator. Leibniz argues that the thesis that God's works are good *because* they are God's works is close to saying the Spinozist position. Since for Spinoza, God acts out of absolute necessity, there is no reason to praise God's works. Leibniz pushes the other position into a corner by saying that if God's works would be equally praiseworthy in that conception even if God did the exact opposite. The first strong argument that Leibniz provides against the Cartesians is that every will presupposes a reason for willing, that is reason is prior to the will. Since God is perfect, the reason behind the will must always be the proper one. God wills his works because they are good. The standard of goodness is independent of God's will but not of his understanding. Such rules are correct because God thinks the way he thinks. However, the claim that there is a reason for every God-willed act is unproven.

3. **Against God doing better** - Since God acts in the most perfect way, it is impossible that God could have done better. Here Leibniz says that if one acts less perfectly, then one acts imperfectly. If God's works are not good absolutely and only relatively, then they are not praiseworthy.(?) This is why God's works must be the best, absolutely good.

4. **Acquiescence without quietism** - What does the fact that God makes the most perfect world mean to us? The knowledge that God makes the most perfect world is the ground of the love we owe God.

God is not loved just because. We love because it gives us satisfaction through the happiness or perfection of what we love. Since God gives us the most satisfaction, it is rational to love God. Leibniz implicitly wants to say that the more that a thing is perfect, the more the reason to love it. Leibniz says that loving God properly if one is not disposed to will what he wills. Willing what God wills means willing, and therefore being truly satisfied with, what God has willed for us. Leibniz compares people who are dissatisfied with God as rebels. For Leibniz we don't have to love what happens because it is necessary and that it happens but because it is a part of an eternal perfect plan of God. But what about tomorrow? We do not know what God has willed for tomorrow, but we must not be quietists and be satisfied with whatever God wills, we must try to harmonise our will with that of God's if we want to love, i.e., to seek satisfaction. We must try to act according to what we think is the will of God and try to contribute to good. "Of course, since we do not know what God has willed, we might misjudge his will and act in the wrong way. But even then, Leibniz thinks, it does not follow that God did not want us to do what we did. For all he requires is that we act with the right intention".

5. **Rules of Divine Conduct** - In Section 36, Leibniz says that minds are are the most perfectible substances, and here that minds are the most perfect beings. Since minds are the most perfect in existence apart from God himself, God's principal aim is in their happiness. He talks about minds occupying volume metaphorically to mean that they interfere with/hinder each other the least. "Then Leibniz says what constitutes the rules of perfection: simplicity in the means, and variety, richness, and abundance in the effects; and one must be in balance with the other". The effects are the things that are there in the world and how they are. The means are the laws that govern them and the general principles concerning these effects. Leibniz wishes to say that God somehow maximises the effects of the world and also the simplicity of its laws. A calculus of variations of the possible worlds of sorts, that God notices the solution which perfectly balances this. There is no hint as to why Leibniz believes, that there is exactly one such solution to this, that there is exactly one world that can be chosen. But it does not seem implausible to see that it relates to the idea already seen, that the world must be maximally perfect, if not unique, it relates to the

same problem as to perfection or the best of all possible worlds. But Leibniz further says that the best of all possible worlds is also morally maximally perfect. It is clear why it is metaphysically most perfect but not why it has to be morally perfect as well.

6. **God's Orderliness** - Usually, God's actions are classified into ordinary and extraordinary, the latter to allow for miracles, seemingly laws of physics being broken. But Leibniz argues against this. For God, nothing he does is out of the ordinary. Everything is a part of the universal order. "There are things, however, that pass for extraordinary, like miracles, but this is so only with respect to some particular order established among creatures."

7. **Miracles are orderly** - Nothing can happen outside the general order. There is a general law that describes the general order of the universe, then there are subordinate laws of the nature of things. God violates these subordinate laws at times and acts (still in accordance with the general order) at times to perform miracles by acting out of his particular will. However, God only wills the objects of his particular will, he does not will those of the general. he permits them and concurs with such actions but does not will them. Although these are evil in themselves, they contribute to the perfection of the world.

8. **Individual Substance** - After speaking of God, Leibniz now has to explain how men can act for example and talk about actions and passions of creatures. To explain this, he begins to explain what the notion of an individual substance consists in. The definition of a substance that he gives: a substance is the subject that, although many predicates are attributable to it, it is not attributed to any other subject. Leibniz says that since all true predication depends on (or has a basis in) the nature of things, the subject term always contains the predicate term. Leibniz's general theory of truth says that every affirmative truth has the concept of the predicate included in it. In a statement like "Satbhav is Satbhav", this is obvious. In others like "Satbhav is a person", it might be implicit. In further ones like "Satbhav enjoys philosophy", it may require careful analysis. All true predication is grounded in the nature of things. "Nature of things" is to be understood as the internal principle that makes a thing the thing it is, it is the essence.Since all true predications are grounded in the nature of things, everything

that can be said affirmatively is a part of the nature of the thing. For example, "Satbhav made notes at 10:47 AM" holds true and is part of the essence of the subject, i.e., it is not possible for this to not be the case and the subject still be the same.
The nature of an individual substance is to have a notion so complete that it should be sufficient to contain and to allow deduction from it of all the predicates of the subject to which this notion is attributed. And he distinguishes substance from accident, a notion which is not complete. Gonzalo Pereya says "Thus what distinguishes a substance from an accident is that the concept of the former contains everything that is true of the subject to which that concept is attributed, while the concept of the latter does not contain everything that is true of the subject to which that concept is attributed."
"In general, then, one must distinguish between two kinds of concepts of accidents: (a) the concept of an accident F in the sense of being the concept that characterises F, and (b) the concept of an accident F in the sense of being the concept that characterises the subjects of F in virtue of those subjects having accident F. It should be clear that, in general, a concept of an accident in sense (b) is not a concept of an accident in sense (a), since the concept that characterises the subjects of the accident need not characterise the accident itself." Leibniz suggests that God sees in the concept of Alexander, the ground and reason for all true predicates that can be attributed to him. Hence, there is a reason for all the predicates (PSR) and more so than a list of predicates, the concept of Alexander contains the reason for the true predicates. Leibniz calls the individual concept of a thing its 'haecceity', from the vocabulary of Dun Scotus, this is the principle of individuation, what makes this thing this thing alone. Because every substance is related o everything else, it is possible to deduce from a complete concept of any one substance, all the predicates of all the substances in the world. We can append one part of the predicate of the related substance to the our known substance to create another predicate that can be said of the relation between them. For example, we can append "Leibniz died on 14 November 1716" to "Satbhav likes Leibniz" to give "Satbhav likes Leibniz, who dies on 14 November 1716". Since the latter is a part of the concept of Satbhav and is known, then all true predicates of all things can be known. A single substance contains traces of everything that has every happened, that are happening and that will every

happen to every thing that exists in the universe.

9. **Expressing the universe** - From his conception of substance he claims that it follows that no two substances are entirely alike. (one would assume that *is identical to A*, is a valid predicate of A, which would not hold for anything other than A. But is this question begging? Can there be a predicate *is qualitatively identical to A*?) If PII follows from his theory of truth, then it must follow necessarily, committing him to the strong claim that "*no substances, whether or not they belong to the same possible world, are entirely or perfectly similar*". Leibniz also claims that substances are the lowest species. Leibniz carefully avoids committing to the substantiality of corporeal bodies, because substances are indivisible and not made of parts, the continuum posed a threat to this and thus Leibniz says that if bodies were substances, then they need to have some other property above and beyond size, figure and motion.
   For Leibniz, expression roughly means that elements of an object B are expressed by A when there are elements in A which correspond to those of B. In another place, Leibniz said that sensation, perception, and knowledge are species of expression. Through this and PII, we can ensure that each substance expresses God and the universe in its own way. It is like each substance perceives the world in its own way, from its own different point of view. Leibniz says that the expression by a substance of the whole universe is like an infinite perception. By expressing everything, each substance mimics God's omniscience. But it does not reach the omniscience and omnipotence of God because the expression of everything that happens in the universe is confused expression. So although a substance expresses the same items God knows, the substance does not express or represent them with the distinction, awareness, and understanding God is capable of. The metaphor of different points of view makes it seem like Leibniz is saying that substances express the universe by perceiving it (not by knowing it).

10. **Substantial Forms** - Among the Scholastics, substantial form means a concrete internal cause whose effects are the properties of a substance. It also explains the unity and identity of an individual. An individual concept is a logical entity associated with a substance. The substantial form is what instantiates the concept. Leibniz later identifies substan-

tial forms with souls, assigning a body with a substantial form is to assign them a soul. Although here, Leibniz rehabilitates substantial forms he doesn't think that we should use them to explain particular phenomenon. They belong to the domain metaphysics.

11. **Humility in the face of Scholastics** - The rehabilitation of substantial forms happens only if bodies are substances, something that Leibniz doesn't answer definitively in the Discourse.

12. **Over and above extension** - By reflecting on the notion of substance we must say that either (1) bodies are not substances or (2) the nature of the body consists of more (a substantial form, something relating to souls) than extension. Substantial forms don't change anything in phenomena. This is why they have no explanatory power in physics. From the disjunction above, it follows that Descartes is wrong. Descartes uses the primary/secondary quality distinction to claim that modes of extension like size, figure, motion are distinct. Whereas color and heat have some subjective quality to them. Leibniz rejects this by saying that there is *something* imaginary to the former, something like what we attribute to the latter. The implication is that size, shape, and motion cannot constitute a substance, since they are also imaginary and relative to our perceptions. Since later he hints at the relative nature of motion, that is, it is not clear which body moves and which doesn't when several move with respect to each other, it might be thought of the something imaginary (perspectival) that plays into the idea of undermining the absoluteness of the primary modes of extension. In the Cartesian conception of matter, the secondary qualities result from the primary qualities which are actually in matter. If the primary qualities are also at least a little perspectival in Leibniz, then what do all the modes result from? Force is real in bodies and it is what grounds motion. (later).
    If there is no principle of identity in body other than extension and its modes, bodies would not subsist for more than one moment. Because if extension is the only nature of a body, then a body will remain the same only till it changes. In summary, Leibniz's official position in the Discourse combines an explicit commitment to the rational or intelligent soul (the soul that believers in souls would typically attribute to humans) being a substance, with a professed neutrality about the

existence of corporeal substances.

13. **Incline without necessitate** - If we have a complete concept, then the true predicate of any action follow from it logically and hence necessarily. Assuming that the complete concept necessarily describes the substance, all actions of the substance are not contingent and hence not free. Leibniz agrees that freedom entails contingency. Here Leibniz shows his excellence and makes fine distinctions. First off, God foresees future contingent events, these are certain. But they are not necessary. Their certainty does not consist in their being foreseen by God, but God foresees them *because* they will obtain. That they will not fail to obtain does not mean that they could not have failed to obtain. And because they could have failed to obtain, they are not necessary. That is why the fact that future contingent events are certain does not make them necessary. But this does not solve the problem. (because events still follow logically from the concept). Here, Leibiniz introduces his distinction between absolute necessity and hypothetical necessity. For Leibniz an absolutely necessary proposition is one whose opposite, that is, its negation, entails a contradiction.
"Consider the proposition if a god with an absolutely efficacious will willed that there be no golden mountain, then there is no golden mountain. The proposition there is no golden mountain is not absolutely necessary, since its opposite, there is a golden mountain, does not entail a contradiction. But the proposition there is no golden mountain is necessary on the hypothesis that a god with an absolutely efficacious will willed that there be no golden mountain. For the conditional proposition if a god with an absolutely efficacious will willed that there be no golden mountain, then there is no golden mountain is necessary."
Simply put, 'If p, then q' is absolutely necessary but 'q' is not absolutely necessary. However if 'p' turns out to be absolutely necessary, then so does 'q'. The hypothetical necessity of future contingents grounds their certainty but restricts their absolute necessity.
Leibniz's point is that if Caesar crosses the Rubicon, this is not because it is impossible that he does not cross it, but because the world is more perfect if he crosses it

Leibniz uses the idea that if we include the conditional '*if God freely decrees that he will do what is best, then Caesar crosses the Rubicon,*'

in the individual concept of Caesar, then the problem is alleviated. This is how. The conditional '*if an individual concept C describes Caesar, then if God freely decrees that he will do what is best, then Caesar crosses the Rubicon*' is then absolutely necessary. The antecedent is also absolutely necessary and hence the consequent is also absolutely necessary. Note that the consequent is '*if God freely decrees that he will do what is best, then Caesar crosses the Rubicon*'. The consequent in *this* conditional is not absolutely necessary and hence Caesar crossing the Rubicon is only hypothetically necessary and not absolutely necessary, i.e., it is contingent.
Further this matches with the intuition, because conditionals like 'if individual concept C describes Caesar, then Caesar crosses the Rubicon' and 'if individual concept C describes caesar, then Caesar exists' are contingent. The latter shows that Leibniz sidesteps the Anslem's problem of conceiving a perfection implying its existence. Here, the contingency of such propositions lies in the hands of God's free decrees. The standard ontological argument for God becomes unsalvageable for Leibniz. (what can he provide instead?).
A technical snag still exists for now 'Caesar crosses the Rubicon' is not deducible from the concept of Caesar. This means that God's free decrees cannot sit well with the theory of concepts of substances of Leibniz. A bigger problem would be that if God is a substance (plausible for Leibniz, although not explicit), then God himself would have a complete concept and then free decrees must be deducible. Contingency cannot be saved like this.

He says that all contingent propositions have reasons as to why they are as to otherwise (PSR). These reasons don't render the actions of the propositions necessary. They incline without necessitating.

14. **Action without interaction** - Substances emanate from God like thoughts emanate from us. Substances are dependent on God for their creation and conservation. thoughts are modes and not substances, the analogy is thin. God contemplates or sees all the system of phenomena he decides to create, and the result of each such view as contemplated from a place is a substance. God sees all the perspectives and the creation of a substance is just an act of God thinking of the universe from one such perspective.But substances themselves are not perspectives of

course.
Leibniz says that all that can happen to us is thoughts and perceptions. If substances express the world as the way it perceives the world and if the world is the totality of substances, then what do substances perceive at all? (one way out that Gonzalo Pereya suggests is to anchor perception of states of substances to perception of thoughts.) Each substance is like a world separate all the rest causally too, it is dependent on nothing except God. How then do substances that are casually inert have some form of correspondence among the phenomena that they privately express? They express *as if* they were all perceiving the same public phenomena. This is the sense of correspondence that can carried out under Leibniz's perspectivism considering that there is no substance causing the phenomena. This is a coherence theory of reality of the phenomena. The phenomenon of a substance S is real if and only if it coheres with the other phenomena of S and allows S to judge correctly S's future phenomena on its basis. The cause of the correspondence between the perceptions of substances is God.
Pre-established Harmony is (a) all that happens to a substance is onl a consequence of its own being and (b) the states of substances have been set up by God to harmonise with each other.

15. **Acting on one another** - Substances all express the world but they all express the world differently with differing levels. Some express better than others at some time and vice versa. A substance is said to act when it expresses the universe as it exerts its power. Leibniz identifies the virtue or perfection of a substance with its power. When a substance passes to a higher degree of perfection, it acts and when it passes to a lower degree of perfection, it is said to be acted upon. When we say that a substance has acted upon another, we mean that the former has provided reasons to God for what happens in the latter. Every action of a substance involves pleasure and every passion involves pain.

16. **God above the forces of nature** - Leibniz says that miracles are above the subordinate maxims but conform to the universal law of the general order. A miracle is contained in the individual notion of a substance. 'since the power of our nature is limited, the forces of our nature can be surpassed.'.

17. **Energy/Force conservation** - Using two ordinary truths (1) there is no perpetual motion and (2) the force of a machine is diminished only in so far as it gives to adjacent objects and imparts motion to them, Leibniz says that the conservation of force is a rational thing to believe in. The Cartesians believed that force was the quantity of motion (more closer to momentum). He argues simply from conservation of kinetic energy and potential energy, that since momentum is not conserved, it is not the force.

18. **Force vs Momentum** - Leibniz says that motion is simply change of place and by Galilean relativity, it is not possible to tell whether a body is at rest or in motion (in some absolute sense). But force is more real and through this we can attribute motion to a body. Leibniz is saying that motion is not entirely real; it necessarily involves a subjective choice of a frame of reference. But the cause of motion is force and this is an intrinsic property of bodies unlike the relative nature of motion. Since in Cartesian science, force is defined in terms of motion, the former cannot ground the latter. But the real thing to learn from this is that Leibniz argues that since force is distinct from motion, size and figure, 'body' does not consist uniquely in extension. Here, Leibniz proposes that we must reinvent some of the things that the moderns banished from science, substantial forms. Since force must be in body and force is different from the modifications of extension, susbstantial forms must be reintroduced. (If one says that anything other than extension is a substantial form, then this is trivial. But Leibniz says that substantial forms need not play a role in scientific, physical explanation. Force does play a role, hence it cannot be a substantial form in itself.)
    Sidenote:Leibniz says that it's apparent that all natural particular phenomena can be explained mathematically or mechanically. yay!
    Further, physical forces contain or involve only the following or maybe the previous state of a substance, not of all of its states past, present and future. However. a 'primitive force', the substantial form, would involve the latter.

19. **Teleology in physics** - Leibniz criticizes the moderns who want to banish final causes from physics because this leads them to think that God does not intend good while acting. On understanding physics

broadly as what ultimately grounds the laws of nature, Leibniz grounds them in God's decision to create the best of all possible worlds.

20. **Phaedo** - references a section from the *Phaedo*.

21. **Mechanics minus metaphysics** - God's wisdom has been recognised in the mechanical structure of particular bodies, but it also has to recognised in the economical nature and the constitution of the general laws of nature. Now Leibniz reiterates that there is a non-geometrical principle in bodies, force and the laws of nature and motion, like the conservation of force is also non-geometrical. If a small moving body A hits a large stationary body B, then after the collision the body B will *not* move with the same speed as that of A before the collision. However, if the laws of motion were purely geometrical, this would follow. Hence, Leibniz invokes final causes, i.e., God's decisions to explain the grounding of the laws of nature.

22. **Reconciliation of the causes** - Leibniz says that we must use both ways, the efficient causes and the final causes. Both the methods play a role in both scientific justification and discovery according to Leibniz. He says that the method of efficient cuases may be more profound and a priori but the way of final causes also gives a quick answer in times where the former is too detailed. The example he gives is of the Snell-Descartes law. Snell had used considerations of the form 'light travels in the easiest path.' Descartes had shown a derivation from efficient causes. Leibniz says Descartes might not have been able to derive the law if he had not considered the final causes. Does Leibniz assert teleology to natural agents or only to God? It is unlikely that the only teleology present in Leibniz is that of God and that all of the natural agents have final causes only indirectly in terms of being a part of God's creation. If this is the extent to his teleology, then his teleological explanations become redundant since they don't take into account the manner of operations of bodies. However, Leibniz wishes to rehabilitate teleology from the substantial forms of the Aristotelians (whose explanations were indeed vacuous) into physics. Introducing teleology to natural agents is the natural step in this. One way to escape overdetermination in this case is by claiming that the efficient causes entails the final causes and vice versa.

23. **God acts on minds** - Just because we think about something does not mean that we have an idea about which we are thinking. He attacks Descartes' ontological argument for God by saying that just because we think of God does not mean that we have an idea of God. Leibniz concludes that the ontological argument shows only that God necessarily exists if God is possible. Something that is true only of God (ens a se, being by itself). For Leibniz a true idea is an idea of a possible thing (not of an existent object). A definition is nominal when one can doubt the possibility of the thing defined. But when the definition makes known the possibility of a thing, it is a real definition.

24. **Knowledge** - Leibniz is mainly concerned about sortal identificatory knowledge here. Leibniz classifies knowledge into clear, confused, distinct, adequate, supoositive and intuitive. We know clearly when we can recognise something without a doubt. If we can recognise thing among others without being able to say what the differences are, then the knowledge is confused. Knowledge is adequate when everything that enters into a definition or distinct knowledge is known distinctly to its primitive notions. When the mind understands all this at once, it is known as intuitive knowledge. There are three kinds of real definitions, we may know a thing a posteriori or empirically. Such a thing is merely real. We may know a thing a priori when the definition contains the possible generation of the thing and when it contains only primitive notions where proof of its possibility is unnecessary. The problem that comes up here is that we may not have the necessary experience to judge whether a definition is real or nominal, in so far as this, the defintions' reality becomes observer dependent.

25. **Knowledge and idea** - We have no ideas of impossible notions. When our distinct knowledge is intuitive or when our knowledge of a confused notion is clear, our knowledge is joined to the contemplation of the idea. An excellent passage from Pereya says "There is another problem with what Leibniz says in this section. For he implies that when one has inadequate knowledge of a distinct notion one does not contemplate the entire idea in question. In this case one can explain what the distinguishing marks of the thing represented by the idea are, but one cannot explain the distinguishing marks of those distinguishing marks. But if one can recognise the thing represented by the idea in virtue of its dis-

tinguishing marks, then one can recognise those distinguishing marks. Thus, one has a clear idea of those distinguishing marks. And if one cannot explain the distinguishing marks of those distinguishing marks, then one has a confused idea of those distinguishing marks. Thus, one may have a distinct but inadequate idea while having a clear but confused idea of each one of its ingredients. But, according to Leibniz, I contemplate the entire idea when I have a clear but confused idea. But if I contemplate the entire idea of each one of the ingredients of a certain idea (and contemplate how those ingredients combine together to form the idea in question), I thereby contemplate the idea in question in its entirety. Therefore, it seems that one can contemplate the entire idea when one has inadequate knowledge of a distinct notion"

26. **Anamnesis** - For Leibniz an idea is the quality of our sou to represent a certain nature, form or essence in so far as it expresses some nature, form or essence, whenever the occasion of thinking it arises. We have ideas of all things, of God, the universe, all essences and all existences. Another passage explaining the same says "The mind or soul has the capacity to represent a certain thing when the occasion arises because it already contains an expression of that thing. Thus an idea is neither the form of a thought, nor its immediate object" An idea has the disposition to become a thought. It is a thought in potency. But an idea provides the representational content of the thought. Idea is also what is common to many thoughts. We can remember and imagine an elephant, on both cases there is only one idea of an elephant. We have all these ideas in our minds. We need only attention to know truths and the mind contains the ideas that the truths depend on.

27. **Tabula rasa?** - Leibniz says that there is a sense in which it can be said that we receive some knowledge from outside through the senses. This isnt Aristotle's full fledged theory however. Classic innatism wise, he argues that ideas of myself, my thoughts, being, susbtance, action and identity come from internal experience.

28. **God is our light** - For God acts upon us, and every effect expresses its cause, and so our soul is a certain expression, imitation or image of the divine essence, thought, and will, and of the ideas of all things that are contained in it. When we see something, we have the idea of the thing in virtue of out mind being an expression of God. God

determines us to think by his ordinary concourse. We see all things by God. But we dont see all things in God.

29. **Anti-Occasionalist** - It is inconceivable that the soul having a certain autonomy but still being dependent on God for preservation. thinks using the ideas of others. The soul includes everything that happens to it, including qualitiies that express God and the universe, namely ideas.

30. **Incline without Neccessitate Electric Bogaloo** - Leibniz says that mainly God merely conserves creation. This matches with the rest of his philosophy as nothing can happen to us from the outside. Further, our will is determined to choose what is best but not necessitated to do so. Metaphysical evil, imperfection, is the root of moral evil, sin, which is the root of the physical evil, suffering.

31. **Reduction to God's choice** - Based on what reasons does God give us grace? Leibniz has no answer. The best way out is to think that a person's individual concept contains all that happens to him including the graces of God and that it pleased God to choose that person over the rest.

32. **Piety** - The soul is alone with God in a sense. This must inspire divine love of God. Souls are indivisible meaning they cannot be annihilated by natural means, only through divine annihilation can they be perished.

33. **Soul/Body** - The union of the soul and body is not a genuine unity. It is more of a commerce. There is of course no such real interaction, what must be explained is the apparent interaction. "It is interesting to note that what makes it possible for the soul to express the rest of the universe is also what makes it possible, and ensures, that we have confused perceptions, namely that our soul expresses the rest of the universe through the connection of its body with the other bodies. Thus, the soul perceives everything, but most of what it perceives it can only perceive confusedly."

34. **Mind and other substances** - Only minds can know/discover truths so even though animals have souls, they express the world less perfectly than minds. Knowledge is a kind of expression. Souls don't have

reflective knowledge. This means that they cannot discover truths, although Leibniz does not say why. This also means that they lack the sense of self. Again, like Locke, Leibniz says that immortality that is craved in religion involves memory. It is memory that makes one morally responsible.

35. **Excellence of Minds** - "The thought in Section 35 seems to be that God will have a preference for minds and therefore he will preserve their person rather than just their substance. The preference is based on the fact that minds are the beings with which God can enter into a conversation and society and can understand and love God. And God cannot preserve that society if he does not conserve our person—thus, since it is reasonable to think that he wishes to preserve that society with us, it is reasonable to think that he will conserve not only our substance but also our person." Minds occupy a special place because they are the most like God, and can express God and the universe more perfectly.

36. **God is King** - God is the monarch of the perfect republic composed of all minds.

37. **Jesus revealed the mystery of the kingdom of heaven** - Jesus has given us the means to know God. He has made accessible happiness to all.

9.4 *Principles of Nature and Grace*

A *substance* is a being capable of action.

Simple substance aka *monad* $\implies$ no parts- lives, souls, minds. Monads cannot be made or destroyed naturally as they are simples. They have no shape, hence they are differentiated from one another only by internal qualities - perceptions and appetitions.

Every monad which forms the center of a composite susbtance is surrounded by an infinity of monads which make up the body. The body is *organic*, a natural automaton. Monads are like living mirrors of the universe. The perceptions of the monads arise out of another by the aws of appetitie or of final causes of good and evil. Perfect harmony between the efficient causes of bodies and final causes $\implies$ pre-established harmony.

Each monad constitutes a living substance. There are infinite levels of life. If properly arranged, they can give rise to feelings- perception with memory- making up animals; the monad, a soul. When soul has reason, it is mind. Difference between perception -internal state of monad and appercetion - consicousness/reflective knowledge of that internal state.

Connedtedness between perceptions if animals is of facts not causes. True reasoning involves not induction but logic, numbers, geometry, the domain of the indubitable. This makes us capable of scientific and demonstrable knowledge.

There is no metempsychosis, only metamorphosis. Living beings come from pre existing living beings, not from nothing or from chaos.

Nothing comes about without sufficient reason.

God is the sufficient reason for why there exists something rather than nothing. Back track the reasons until there is one necessary reason for all the rest.

God is absolutely perfect.

God creates the best of all possible worlds.

God chose the best laws of motion which fit with abstract/metaphysical reasoning.

Every monads perceptions and appetitions are ordered in the most perfect way such that it remains compatible with all the rest.

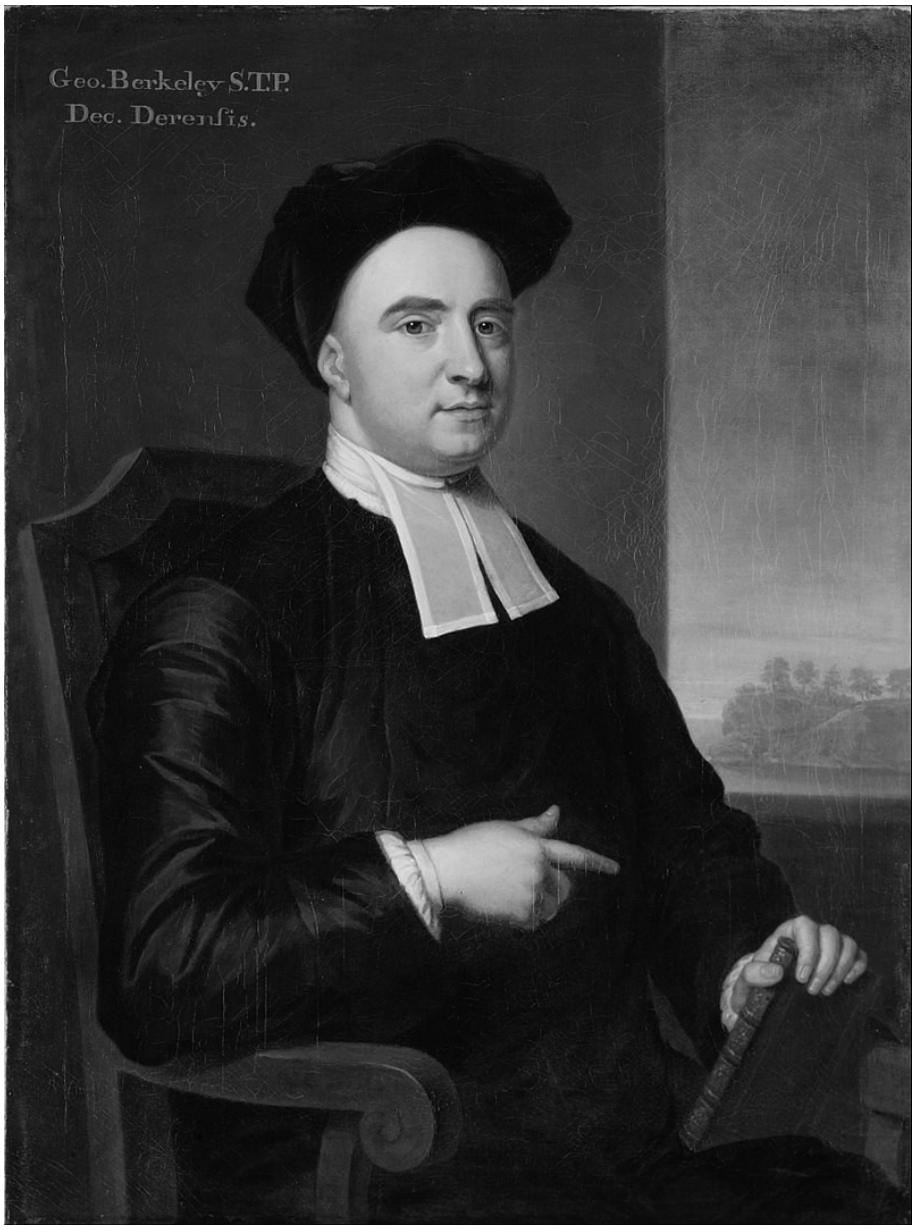
The beauty of the universe could be seen in each individual soul, if we could only unfold all that is enfolded in it, and which will become perceptible only as it develops over time. Every soul knows everything but confusedly.

The mind is not only a mirror of the universe but also an image of divinity.

Minds are a part of the City of God.

When God is the object of love, it is true pure love which gives us the highest of pleasures.

9.5 The *Monadology*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Chapter 10

Berkeley

> ...this argument is drawn from Dr. Berkeley; and indeed most of the writings of that very ingenious author form the best lessons of scepticism which are to be found either among the ancient or modern philosophers...
>
> *David Hume*

10.1 Biographical Sketch

George Berkeley was born in 1685 in Kilkenny, Ireland. He joined Trinity College in Dublin at 15 years of age. He became a fellow of Trinity College in 1707. Berkeley studied modern science and philosophy in the late 17^{th} century. Berkeley studied and owes a lot of influence from previous modern philosophers like Descartes, Locke, Malebranche and Newton. Early on, in 1709, he published his first major work *An Essay Towards a New Theory of Vision* discussing vision, distance and position. He says that the objects of vision are light and colour and not material objects. He published *A Treatise Concerning Principles of Human Knowledge* in 1710 and reworked it into *Three Dialogues between Hylas and Philonous* in 1713. In the structure, the *Principles* presents the main doctrines of the philosophy of Berkeley and

the *Dialogues* expound on the arguments through a dialectic. His philosophy was not met with much acclaim and even garnered ridicule from few. He was also ordained during this time.
Berkeley visited England and traveled extensively during 1714 and 1720. In 1721, he took Holy Orders in the Church of Ireland and lectured in Divinity and Hebrew. In the same year he published *De Motu*, a work of the philosophy of mechanics, where he took an instrumentalist vision to Newtonian mechanics. Esther Vanhomrigh had a quarrel with Jonathan Swift in 1723 and named Berkeley her co-heir. He began founding a college in 1725 in Bermuda for training ministers and missionaries. In 1728, he married Anne Forster. He then left for America. He landed near Rhode Island, where he bought a plantation Whitehall. In 1732 he returned to London as he could not get funds for the plantation. He and Anne had four children who survived infancy, and at least two other children who died in infancy. In 1734, he published *The Analyst*, a critique of the foundations of the Newtonian calculus. In the same year, he was made the Bishop of Cloyne and hence, returned to Ireland. In this time, he published a few works relating to theology and politics. Famously, his last works were on the supposed medicinal properties of tar-water, which presented him as a quack. He stayed in Ireland until his death in 1753.

10.2 *Principles of Human Knowledge* and *Three Dialogues*

Bishop Berkeley's philosophy is known for (and also criticized for) three main qualities– the empiricism, the systematic explanation of common sense and the idealism. Berkeley constantly returns to the first two qualities to support the third. Berkeley wishes to remove anything that is not common-sensical or obvious. His attacks on many beliefs rely on this disposition of his. Usually, Berkeley is presented in the dialectical growth of the British Empricists from Locke to Hume. However, it is clear from reading the *Principles of Human Knowledge* and (even more so) the *Three Dialogues*, that his criticism of Locke and the movement forward lies on unsure foundations as any sympathetic reader of Locke would not attribute to Locke most of the theses that Berkeley criticized. As a preamble, it is also important to delineate between phenomenalism and full-blown subjective idealism. According to phenom-

inalism, to say that a thing exists to say that if certain sense-perception data were to obtain, then we could be certain that certain other sense-data would obtain. Here, phenomenalism means that (1) every physical state of affairs has a certain conjunction of sensation-conditionals whose truth logically entails the existence of that states of affairs and (2) it is unnecessary for anything else to exist (mind, God etc) that make the sensation-conditionals true. Phenomenalism can be understood to mean *to exist is to be potentially perceived* in order to compare it to the stricter Berkeleian condition of *to exist is to be perceived or to be a perceiver*. Thus, contextually it is more proper to read Berkeley as a subjective idealist although a sympathetic reading for phenomenalism is also possible. As the troubled historical nature of the word 'idealism' is difficult to overcome, Berkeley's position is known as *immaterialsm* in some contexts.

Berkeley's work is mainly expressed in two works, *A Treatise Concerning the Principle of Human Knowledge* and *Three Dialogues between Hylas and Philonous*. The latter is a reworking of the former in dialogue form with Hylas (meaning wood or matter) representing a representational realist (some sort of caricature of Locke) and Philonous (meaning love of mind, or love of spirit) representing Berkeley.

For Berkeley, fundamentally, to exist requires a perceiver, all else that exists exists in lieu of being perceived by the perceiver. The other main claim that Berkeley makes, in the Introduction, is an expression of his *nominalism*. Both of these are presented as commonsensical notions. We think that we have abstract ideas of say a triangle or a man in the wholly general sense. But this cannot be as to have an idea of a triangle in the wholly general means that we must have an idea of a triangle that is neither equilateral, nor scalene, nor isosceles–something that sounds ridiculous. Similarly, we must conceive not just qualities separately, we must also conceive them wholly generally. That is we must have a notion of motion that is separate from extension and color when we conceive of motion as an abstract idea. But don't we just imagine a particular body with particular colour and extension in motion when we conceive of motion, we do not think that these exist separately. We can have general ideas which are not abstract. This is the nominalism. Berkeley says that we can say that the idea of motion is an idea that applies to all the ideas of particular notions.

How does Berkeley come to his idealism? The basis indeed lies in his attachment to the doctrine of ideas, that the immediate objects of our experience consist of ideas. However, if we recall from Locke, the support for this

came from the fact that external objects cause sensations in us. These are what we call simple ideas. In this sense, the existence of an external world already seems to be necessary for the doctrine of ideas. Berkeley criticises three alternatives to his idealism

- Direct Realism
- Representational Realism
- A third realism where there exists thing which are neither spirits nor perceptions and they exist outside of human comprehension.

Berkeley begins defending his idealism by noting that 1) the objects of our knowledge are ideas and that 2) all the things that we perceive are just collections of ideas, that is there is nothing more to an object of perception apart from being a collection of various ideas. Next, he tells us that the immediate objects of perception cannot exist unperceived. He also says that the qualities that characterize objects of perception cannot exist unperceived. That is, he says "there was an odour, that is, it was smelled; there was a sound, that is to say, it was heard". He says that smelling completely characterizes the odour, whereas a representational realist would give the representational aspect of the smell something over and beyond this. He blames abstract ideas for confusing the mind of the notion of existence as separate from perception. The argument summarized is

- Objects of perception are collections of ideas
- At least one spiritual substance exists.
- Objects of perception are not substances as they cannot exist apart from being perceived.
- Because sensible qualities are essentially mental, it is incoherent to think that unthinking substance can have similar qualities in it.
- The idea that some other sort of substance which has no sensible qualities and is unintelliglble to men is empty of content.
- Hence, it follows that there is no other substance than spirit.

Berkeley propounds to the essential ideality of perceived qualities. Things like ideas cannot exist outside of minds because, nothing can be like an idea but an idea. However, a sophisticated representational realist would here include a distinction between secondary and prmary qualities. Hence, Berkeley begins to criticise this distinction here. The distinction is criticized by asking the reader whether it is coherent to separate ideas of secondary qualitites and primary, that is can we conceive of motion without conceive of a body with a certain color? Can we conceive of extension without conceiving of a colour? Say you think you can conceive of number, can you conceive of it without any secondary qualities? Since primary qualities are inseparable from secondary qualities, they must be in the mind. He also adds that whatever argument we can give for the essential mind-dependence of secondary qualities can be equally as well applied to primary qualities. Hence, all such qualities are mind dependent, i.e., essentially ideal. He also raises an epistemological challenge to that notion. How can we know if solid figured movable substances exist without the mind? Now he has show that sensation cannot tell of the existence of material substance. Thus, if at all it can be understood, the explanation must lie through reason. Here, Berkeley presents a dream argument. In dreams we are not having veridical experiences yet we have sense-perceptions which are indistinguishable from veridical experiences. Thus, the existence of an external object to cause the sensation is not a necessary condition for sensation. Furthermore, Berkeley says that it is unnecessary to posit such an external world because the people who claim that it exists are themselves unable to explain how they interact or how they cause the sensations or how minds interact with bodies.

How does Berkeley acccount for *real* things? Firstly, we must remind ourselves that Berkeley thinks that the existence of a mind-independent object is a manifest contradiction. Berkeley thinks that although *real* things are just collections of ideas, we can distinguish such ideas from the other kind–*imaginary*. The distinction between *real* and *imaginary* is internal to the system of ideas. Our ideas are as real as it gets. However, regarding the persistence of objects and other such problems, Berkeley invokes God, the all-perceiver. I have a certain power over *some* of my ideas. I can perceive them and choose not to. There exists some seemingly causal relationship between ideas, if they are raised to the level of reality. But ideas are passive and inactive. They are *perceived*. Thus, they cannot act on other ideas. The only thing that exists other than ideas are spirits. Now, Berkeley says that spirits are active and cause a certain idea to pop up at a certain time. This

explains why I have the power over some of my ideas. But what about the rest? We have no control over the vast majority of our sensations. This is where Berkeley invokes God. God is the causal mesh that hold these ideas in a steady order according to his intentions (the laws of nature). However, it is not clear whether Berkeley wishes to say that being *real* consists of having the steadiness and order or being caused by *God*. Hence, if we show that Berkeley's argument for God is mistaken, we might not break down his system, for an internalist picture of reality can still be held. On the internalist view, we need not suppose that knowledge that something is *real* gives us knowledge concerning something that is not an object of perception, namely God.

Berkeley gives an argument of inference to best explanation to the orderliness and organization of ideas which are not caused by men or other finite spirits (the vast majority of them), to support that God, an infinite spirit of the supposed causal power to enact all the ideas as they happen, exists. Of course, such an argument from design has all the flaws that we now know it to have. Unhelpfully, maybe due to his already present theistic commitments, Berkeley does not explain or expand on this argument. Infact he says:

> that nothing can be more evident to any one that is capable of the least reflection, than the existence of God, or a Spirit who is intimately present to our minds, producing in them all that variety of ideas or sensations, which continually affect us, on whom we have an absolute and entire dependence, in short, in whom we live, and move, and have our being.

His appeal to understanding the nature through intuition falls flat here. In the beginning, so far he has appealed to the intuition of our understanding of the immediate objects of our perception. However, this will not work now, as God (and other finite spirits) are not immediate objects of perception and exist independently from my existence. Here comes one of the biggest problems of Berkeley's philosophy: the threat of solipsism. Berkeley has already been unsatisfactory as to give evidence of the infinite spirit, namely God. Now he must conquer a much more difficult task and try to prove the existence of other finite spirits (not the 'I'). It is clear that we have no direct evidence of these as all we can perceive are ideas and not active spirits. This means that Berkeley reduces his explanation of the existence of other finite things to some sort of vague inference to best explanation of the regularities

and order of (some, which exactly?) ideas. This is extremely problematic for a few reasons. First off, obviously we have no way to impress certain ideas onto other spirits directly, it is only through the causation of God that something like that is possible. (Note that Berkeley owes his occasionalism to the influence of Malebranche). Secondly, God's intervention is necessary for even my use of my own body. (for I will only be allowed to have the control of my ideas to *imagine* me moving my body and not *actually* move my body in this Berkeleian idealism).

The objections to Berkeley's system come from common sense, philosophers and science. For Berkeley, his idealism is perfectly in coherence with common sense. He insists that the he only reinforces the sensible natures of objects of existence which is commonsensical. He insists that thinking that ideas are in our head does not mean that they are in anyway less real, for reality itself is in our minds. He says however, that certain philosophers notions of an obscure substratum consisting of no qualities, a completely unqualified object that exists independently yet unperceiveable even in principle and is the basis of all that exists, is contra-common-sense. Infact it is also presented in the *Dialogues* that Berkeley's philosophy does not seem so counter-intuitive if the word 'idea' is exchanged for 'matter' but its mind-depenedentness retained. Berkeley is not denying the existence of objects, only the notion of corporeal substance as envisioned by certain philosophers. Berkeley does not compromize on the reality of objects, he says that the ordered distinct affections of sense which are not caused by finite spirits have more reality than the feeble unsteady ideas of finite spirits. Berkeley says that his idealism agrees with commonsense, that any difficulty or seemingly counter-intuitive notion is only the result of Berkeley's use of technical terms like ideas. He does not wish to reform how the common way of speaking about the world, exactly because he thinks his philosophy agrees with this way. He says: "We ought to think with the learned and speak with the vulgar", that is understand what is meant by the words like a philosopher but this ought not to prevent us from using common language.

Berkeley is hit by another problem here, the objection that objects of sense stop existing if they are unperceived. Berkeley takes that this does not happen as objects of sense depend on the mind but not on *my* mind. As God exists, perceiving all things constantly, the object that exists still exists upon not being perceived by me. This is however a unsatisfactory answer as how can God have *my* idea, how is *my* idea in *my* head also in God? Berkeley falls short of a good explanation here as it requires a good examination of identity

within his philosophy to clarify the notion. Suppose two people are looking at a tree, one closes their eyes, the other still has them open; then further suppose that the first person reopens their eyes, do they perceive the *same* tree as before? For another idea is in the mind of the other person while the first has their eyes closed. In the *Dialogues*, Berkeley correctly acknowledges that this is the problem of identity but does not seem to give an account except to say that they are the same tree in the vulgar notion. Does it mean that identity in Berkeley's sense is only sustainable in unbroken lengths of constant perception? This is not a surprise as identity is one of the abstract ideas that Berkeley wishes to crucify. However, it is an important practical notion that Berkeley is unable to fully account for.

For his response to the objections from science, Berkeley simply says that science tells us laws of regularities of ideas (instead of matter). Berkeley even gives some sort of an instrumentalist account of science here. He says that we use phrases like "the sun rises", when in fact it is the Earth that moves. Similarly, Berkeley claims that causation between ideas is impossible but to talk of it as such is not problematic if we wish to find out the regularities of the spirits which cause the ideas. Berkeley responds to the object that motion of the Earth is a well-established fact. In here, Berkeley sways between idealism and phenomenalism. While answering this, he talks of a subjective conditional account of perception. He says that if we were to be in a certain position with respect to the earth, then we would see a regularity in our ideas that we would observe to be the Earth in motion. Another challenge that Berkeley fails to reach is the question of what role the seemingly endlessly complex mechanisms of nature (in plants, the interior of animals etc.) play if they play no role at all causation. Further, an objection made is to ask what connection of "orderliness" is possible within ideas if they do not interact causally. Berkeley says that the "cause" and "effect" ideas that we think of are more properly thought of as "signs" and the "signified" . Every cause we envision in nature is actually a sign of God's will and of the coming of the thing signified (namely the effect).

As Berkeley understands abstract ideas, he thinks that according to the abstractionists, the word "dog" refers to the general abstract idea of a dog. The abstract idea is not determinate in some respects (like size, fur, color etc). Berkeley attacks this view as we have seen in three ways. One is to question whether it is possible for us to conceive an abstract idea while extracting one quality from a collection (to conceive motion apart from extension). The second way is to question the capacity of being able to abstract what is

determinable distinct from any of its specific determinations (height vs tall, short etc). The third way is to question what complex idea one might have by superimposing many particulars to get some abstract idea. Instead he puts forward a particularist theory. For Berkeley, ideas are not universal in virtue of their representational content but are universal in the way they are used representationally. An idea denotes all the objects in its class. The trouble with this theory is that if we choose one representative for the class, we may not get the general picture, for example proving the Pythagorean theorem on a right triangle does not ensure that it holds for all triangles (but it *does* for all right triangles). Berkeley deals with this by saying that we have invoked the special property of the right traingle (the 90 degree angle), and hence it does not generalize. For Berkeley, it is not a problem to not attend to any particular properties of an idea. However, we cannot believe that the idea we have is wholly general and abstract in content. In explaining this, he says that we are misguided by the structure of words to say that each word has a determinate reference when in actuality general terms refer to all the objects in the class that it pertains to. Why is Berkeley talking about abstract ideas so much? Because the existence of abstract ideas would mean that there is something unperceived and unperceiving. Finally, a last ditch attempt to save matter is presented as saying that it is an inert, unperceived, senseless unknown substance. Berkeley says that this definition has no meaning at all, that it is equivalent to not claiming anything at all.

Berkeley claims that his philosophy is advantageous to science, as it stops skeptics from asking how it is possible to comprehend the universe so exactly, there is nothing surprising when the universe is the immediate content of our perception. There is no hidden mechanism. Properties of microfeatures like motion, figure do not determine the properties of macrofeatures of the world since they are not causes at all. But this does not solve the problem. The regularities that underlie changes in an object's observable features are regularities that concern the insensible particles that constitute it. Skepticism remains steadfast. Berkeley says that natural philosophy cannot tell us about efficient causes and hence there is no reason final causes may not be offered as explanations. However, the laws that we discover are not eternal laws of nature but God's beneficent powers. Berkeley also says that we cannot know that God always acts orderly, as there occur miracles. Berkeley then makes a few misguided remarks on gravitation and then says that the occult quality of using gravitation as the *reason* behind the attraction is circumvented by saying that God effectively causes their attraction and that gravitation is a

instrumental law that predicts but does not explain this phenomenon. He also rejects the Newtonian notion of absolute motion.
A serious challenge to Berkeley is arithmetic. Numbers seem to be highly abstract objects, how can we conceive of them as particular entities? He says that number is entirely a creature of the mind–the number we assign to a collection of things depends on the concept we consider them under. Berkeley says that we must make arithmetic subservient to out practical necessities and not indulge in speculative mathematics using 'philosophically problematic' abstract ideas. He says that once a notation of numerals is introduced, a computation of the signs is enough to make discoveries. He says that

> [I]t is evident from what hath been said, those things which pass for abstract truths and theorems concerning numbers are, in reality, conversant about no object distinct from particular numerable things, except only names and characters; which originally came to be considered on no other account but their being signs, or capable to represent aptly whatever particular things men had need to compute. Whence it follows, that to study them for their own sake would be just as wise, and to as good purpose, as if a man, neglecting the true use or original intention and subserviency of language, should spend his time in impertinent criticisms upon words, or reasonings and controversies purely verbal.

"The doctrine of abstract ideas can cause confusion in a variety of ways, but, for Berkeley, one of its most obnoxious offspring is the notion that a finite line can be infinitely divided." He says that it is clear that one of particular ideas are not infinitely divisible (and have some resolution), extension in general being infinitely divisible is unintelligible. Berkeley rejects many of the infinitary methods of classical mathematics but claims that all that is useful is retained. This is however just a claim, it has to be supported by some sort of evidence which Berkeley does not provide. Since, a line is not infinitely divisible, it must be maximally divisible at some point which Berkeley claims is the smallest extension we are capable of discerning. But this means that something like Pythagorean theorem is rejected (irrational ratio etc). He reaches other absurdities like saying that all circles are not similar.

Largely, this is the scope and extent of Berkeley's subjective idealism as expressed in *A Treatise Concerning the Principle of Human Knowledge* and *Three Dialogues between Hylas and Philonous*. What is the place of

Berkeley's philosophy and what challenges still exist above and beyond the ones expressed so far?

- an epistemological solipsism is overcome in Berkeley by claiming that all that exists is our immediate objects of perception. He thinks that the presence of other minds is intelligible because we have direct access to our own minds. However, there is some abstraction involved in the distinguishing between perceived by *me* and perceived by others, meaning that Berkeley must at most say that other perceive things analogously to us if at all. Other's perceptions must be unintelligible to us, forcing Berkeley into an ontological solipsism.

- the Cartesian dream argument still presents a similar challenge to Berkeley.

- It seems to me that a detailed theory of perception *must* come in direct conflict with Berkeley's philosophy as it cannot articulate how it is possible for us to perceive at all without dogmatically invoking the occasionalism.


A Ramsay

Chapter 11

Hume

> I freely admit that the remembrance of David Hume was the very thing that many years ago first interrupted my dogmatic slumber and gave a completely different direction to my researches in the field of speculative philosophy.
>
> *Immanuel Kant*

11.1 Biographical Sketch

11.2 An *Enquiry*

11.3 A *Treatise*

11.4 *Dialogues*

Chapter 12

Kant

> Kant's critical philosophy is the most elaborate fit of panic in the history of the Earth.
>
> *Nick Land*

12.1 Biographical Sketch

12.2 *Prolegomena To Any Future Metaphysics*

12.3 *What is Enlightenment?*

12.4 *Groundwork of the Metaphysic of Morals*

12.5 *Metaphysical Foundations of Natural Science*

12.6 Before moving on to the *Critiques*

Chapter 13

Others in Early Modern Philosophy