

**Aspects of Western Philosophy**  
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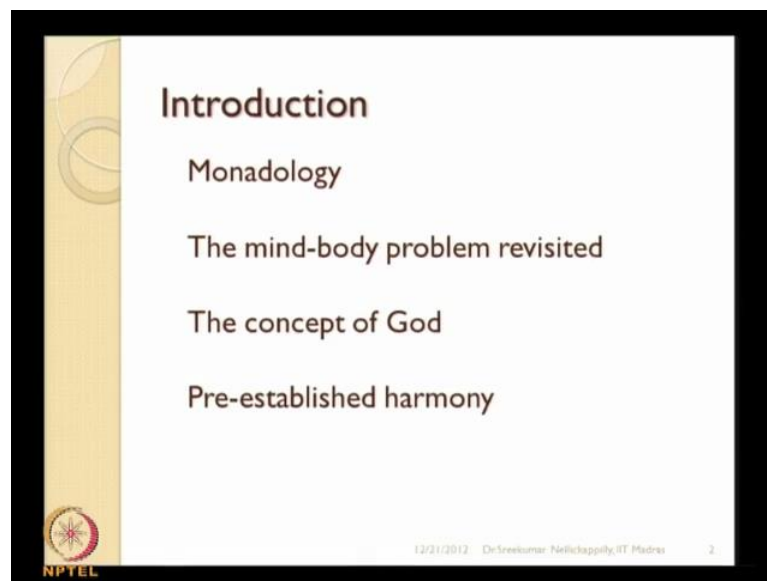
**Module – 13**

**Lecture - 13**

**Leibniz – Monadology; the mind – body problem revisited; concept of God; the  
concept of pre – established harmony**

Welcome to this course on Aspect of Western Philosophy; Module 13, Lecture 13. This lecture is going to be on one very important modern philosopher like Leibniz. Leibniz is quite well known outside the philosophical circles as a mathematician, as a logician, as a diplomat, but more primarily as a mathematician.

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So, this lecture would be covering the following topics, will discuss a Leibniz Monadology which is one of the central concepts in his philosophy or one of the most important theoretical contributions of Leibniz to modern philosophy is, it is Monadology. And with the after explaining this will try to seen the mind body problem which lies at the center of modern philosophy. We have seen that this problem of mind body dualism or the relationship between the mind and the body is at the center of all philosophical contemplations right from Descartes. Descartes has its theory, his version of or account of this relationship. Then we had seen how Spinoza also encounters this problem.

And now we see with this Monadology, how Leibniz is going to encounter and give an account of his views about the mind body relationship. Then we will also see the concept of God, which is another very important concept with which almost all the modern philosophers are preoccupied with. And then the most important contribution or rather I would rather say that this concept, the concept of pre-established harmony is probably what makes Leibniz one of the very important philosophers in modern period.

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**Leibniz (July 1646 – November 1716)**

- Primarily known as an outstanding mathematician.
- Born July 1, 1646, in Leipzig.
- 1675, laid the foundation of the differential/integral calculus.
- 1772-6, met Malbranche and Spinoza.
- Died, November 14, 1716, in Hannover

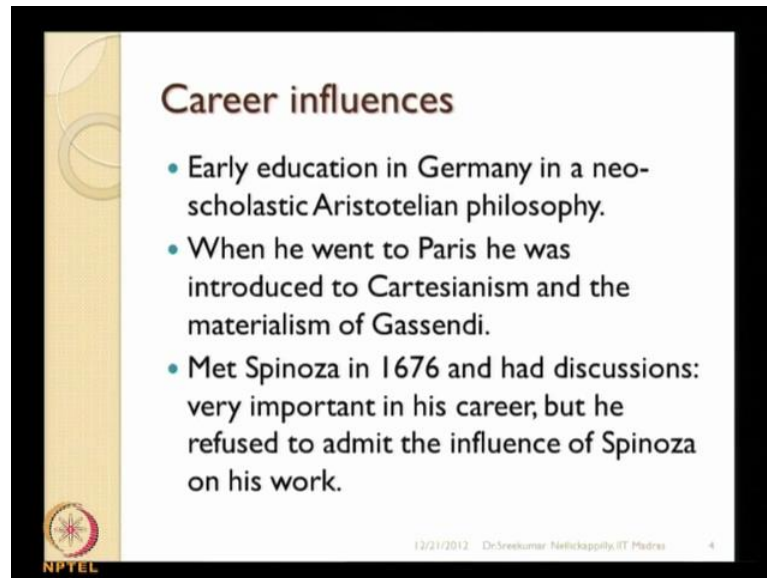
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So, we will see a basic outline of his life and career. He is primarily as I already mentioned primarily known as an outstanding mathematician and born in July 1646 in Leipzig, and 1675 he laid the foundation of the differential or integral calculus. Along with Newton he is known as the one who has laid the foundation of this differential calculus. And this period, 1772 to 6 he had visited several places and also had much two important philosophers; Malebranche and Spinoza.

Particularly Spinoza because it is Leibniz, who succeeds Spinoza in the rationalistic school of thought and Spinoza's influence on Leibniz philosophy is tremendous phenomenal influence, Leibniz himself has accepted it but at the same time Leibniz also maintain a safe distance from Spinoza, who felt very unorthodox use about God and God world relationship. We have already discussed this in the previous lectures, I am not going to elaborate all that aspect and he died in November 14, 1716 in Hannover.

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**Career influences**

- Early education in Germany in a neo-scholastic Aristotelian philosophy.
- When he went to Paris he was introduced to Cartesianism and the materialism of Gassendi.
- Met Spinoza in 1676 and had discussions: very important in his career, but he refused to admit the influence of Spinoza on his work.

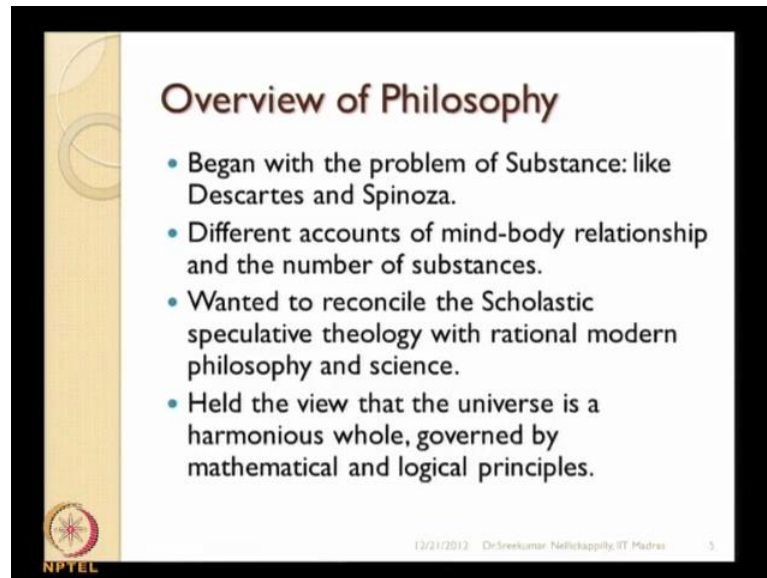
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So, when we talk about the career influences of Leibniz he had his early education in Germany in a Neo-Scholastic Aristotelian philosophy. It is very interesting to see the journey from starting from a Neo-Scholastic Aristotelian philosophy, when he went to Paris was introduced to Cartesianism and the materialism of Gassendi.

These two are again very important influences on his philosophy but particularly Descartes. Descartes influence him a lot he was actually attracted by Descartes philosophy during this period. And then he as I already mentioned Spinoza in 1676, I mean there are several times or locations he met Spinoza and very important in his career, but he refused to admit the significant the tremendous influence Spinoza had on his life and work, there are reasons for that. Not clearly philosophical reasons, but mostly political reasons for that.

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**Overview of Philosophy**

- Began with the problem of Substance: like Descartes and Spinoza.
- Different accounts of mind-body relationship and the number of substances.
- Wanted to reconcile the Scholastic speculative theology with rational modern philosophy and science.
- Held the view that the universe is a harmonious whole, governed by mathematical and logical principles.

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And when we take a look at the overview of Leibniz philosophy, he began with the problem of substance like Descartes and Spinoza like all his predecessors in the modern philosophy. It is with the problem of substance he also began and as we have already seen that this problem, the problem of substance is something which the modern philosophers have inherited from the scholastic thinkers. And we know that, you know you have already seen in previous lectures how his predecessors Descartes and Spinoza have come up with their own accounts of this substance.

Different accounts of mind body relationship and the number of substances all these were issues with which all the modern philosophers and their followers and disciples have been discussing and dealt with. Wanted to reconcile the scholastic speculative theology with rational modern philosophy and science see, one important aspect about I have already mentioned it very briefly in the beginning. One important aspect of Leibniz philosophy is that or rather his life is that, though he had a very promising sort of a young scholar he was a very promising young scholar in philosophy.

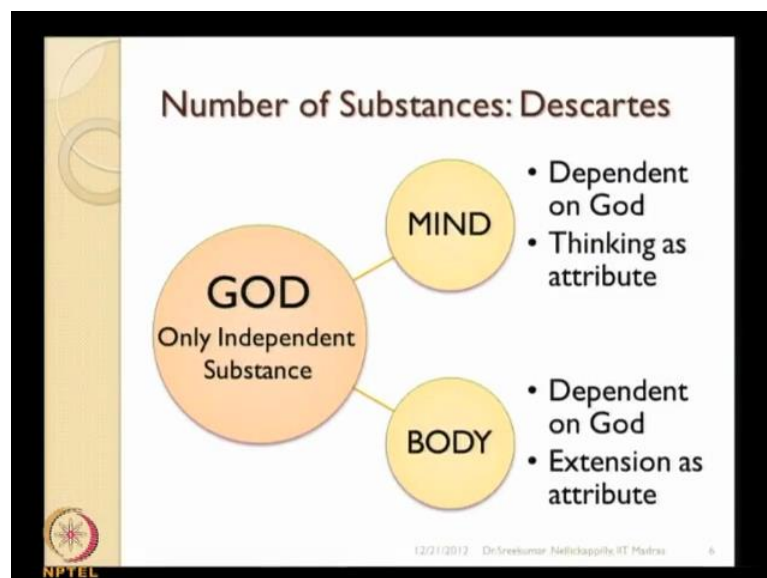
And he was offered several teaching positions, he instead prefer to be diplomats have a political career and prefer to be diplomat. So, very interesting in that sense and again this very notion of a reconciliation which should be there in the blood of a diplomat is there in the blood of Leibniz. So, in Leibniz philosophy is rather preoccupied with this notion of harmony harmonizing differences first of all you accept differences there are different

things. Leibniz philosophy is known as Monadology which recognizes a plurality of different substances monads each one is autonomous each one is independent.

So, you have a plurality of substances you recognize the differences not two monads are alike are the same, but at the same time then there is a craving from reconciling to bring them together, because you cannot operate with innumerable infinite number of discrete unconnected substances you need to establish a kind of unity. But then once you separate them, how do you unify them Spinoza had an answer to this question he unified everything with a concept of God, it a concept of substance Spinoza was trying to bring everything into one fort the concept of substance God. Every entity, every object in this universe is a modification of that according to Spinoza.

But Leibniz was not ready to accept this, what is he wanted to maintain the differences at the same time he wants to unify and this unity was brought in with the establishment of or rather with the with the notion of a pre-established harmony, and harmony which is pre-established by God. So, with the concept of God reconciliation was made possible. So, this is what he tries to be every field he had this craving to reconcile theology and the one hand the scholastic theology on the one hand and the modern science. On the other hand, apparently to opposing conflicting traditions he held the view that the universe is a harmonies whole governed by mathematical and logical principles.

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So, this universe the conception of a universe as a harmonies whole that is again. So, let us go back to the original problem with regard to the number of substances and here we start with Descartes. Descartes as we have seen maintains God as the only independent substance and mind and body are dependent substances they depend on God and for mind Descartes has attributed thinking as it is attribute. And for body extension is the attribute, according to Descartes and they remain separate. They are separated from each other though they depend on God they do not mutually depend, they are mutually independent, but they dependent on God.

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The slide features a central yellow circle containing the text "God: the only Substance". To the right of the circle, there are two lines of text: "Extension and thinking are attributes of God." and "Pantheism: one principle". The slide is framed by a black border and includes a vertical yellow bar on the left side with a circular logo at the bottom. The NPTEL logo is visible in the bottom left corner, and the date "12/21/2012" and the name "Dr. Sreeksumar Nellikapilly, IIT Madras" are in the bottom right corner.

But when you come to Spinoza there is only one substance I have already explained this extension and thinking are attributes of God two among the infinite number of attributes they are, and he proposes at kind of time theistic view which we have already discussed in the previous lecture.

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**Leibniz on Substance**

- Descartes: extension is the attribute of matter and thinking of mind.
- Separation of mind and body.
- Spinoza: attempts to reestablish unity.
- Both are attributes of God.

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Now let us see what Leibniz says about substance. Descartes the extension is the attributer of matter and thinking of mind we have already seen this separation of mind and body and Spinoza attempts to reestablish unity both are attributes of God.

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**Leibniz's Concerns**

- Accepted Descartes' mechanistic explanation of the physical world: dualism is problematic.
- Unhappy with Spinoza who does not recognize the reality of individuals.
- Also opposes Spinoza for rejecting teleology or purpose: working for ends is important in practical life.
- Also found the idea of Substance that is extended and unextended as a contradiction.

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Leibniz's concerns are he accepts Descartes mechanistic explanation, see with this dualism with this separation of mind from body Descartes is achieved one thing what is it. That you know, you can explain the workings of this material universal independent of and mental Asiatic word. So, he could envisage that the world material world is operated

or it is functioned on the basis of certain mechanical laws it is a domain of it is all. It is an independent autonomous to me. So, this is very useful for the development of modern science this philosophy of separate domain for natural sciences independent of scientific and other domains.

And Leibniz too accepts this mechanistic explanation of the physical world, but at the same time he found that the underlying dualism of Descartes could establish this kind of a mechanistic, mechanistic explanation he could come up with this mechanistic explanation on the basis of the dualism he maintained between body and mind, by separating mind from body. And Leibniz found that this is inherently problematic this need to be reconciled, you cannot lie them separate.

So, he was unhappy with again when you come to Spinoza who united them, but he was unhappy with Spinoza who does not recognize the reality of individuals. So, Spinoza does not recognize the reality of individuals, he unifies everything, he makes everything the aspect of God and mode of God or modification of God. So, this is also not acceptable, and he was also opposed to Spinoza for rejecting teleology or purpose see as we have already seen in the previous lecture. First Spinoza everything that happens naturally, happens necessarily, the necessity of God principles of God makes possible everything happens. So, there is no freedom of will there is no teleology or purpose; everything happens as a matter of necessity in Spinoza, this is something which was not acceptable for Leibniz who says that, working for ends is important in practical life.

So, when we do anything see particularly for example, Leibniz was a diplomat and for him the practical concern or doing things, designing things or acting according to certain purposes in mind is very important. So, he was not very happy with this total rejection of teleology from the scheme of things written by Spinoza. Also found that the idea of substance that is extended and unextended as a contradiction, see for example, in Spinoza he would find that God, extension and thinking are the attributes of God the same one, one and the same substance. So, something which is unextended something which is thinking is necessarily unextended and something which is extended can never think. So, when you attribute extension and thought to the same substance according to Leibniz this leads to a kind of contradiction.



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**Extension and Substance**

Descartes	Leibniz
<ul style="list-style-type: none"><li>• Matter as <i>extended</i> substance.</li><li>• It is passive and inert.</li><li>• It is not internally inert and receives motion from the outside.</li></ul>	<ul style="list-style-type: none"><li>• Extension cannot be an attribute of Substance.</li><li>• Extension involves plurality and hence only belong to an aggregate of substances.</li><li>• Each single substance must be unextended.</li></ul>

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So, this is another issue which Leibniz had with Spinoza, and particularly when we come to Descartes matter as extended substance; it is passive and inert, it is not internally inert and receive motion from outside.

According to Leibniz extension cannot be an attribute of substance extension involves plurality hence only belong to an aggregate of substances this is his view each single substance must be unextended according to him. So, there is a kind of atomism which Leibniz's is trying to propose. So, the three most important philosophical theory which probably shaped Leibnizian Monadology are number 1 Plato, Plato's idealism Plato's motion that realities eternal, so monads are eternal. Number 2; the mocking test atomism, there are innumerable number of atoms realities constitute of innumerable number of atoms and number 3 is Aristotle we will come to that slightly later.

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The slide is titled "The Doctrine of Force". It features a yellow vertical bar on the left with a circular graphic. The text is as follows:

**Descartes**  
The quantity of motion is constant.

**Leibniz**

- But what happens when bodies come to rest and bodies begin to move?
- Can we say that motion seems to be lost and gained.?
- Then it violates the **principle of continuity**.
- Nature makes no leaps.
- There should be a ground of motion: **force**, or *conatus*.
- **Force**: the tendency of the body to move or to continue its motion: **constant in quantity**.

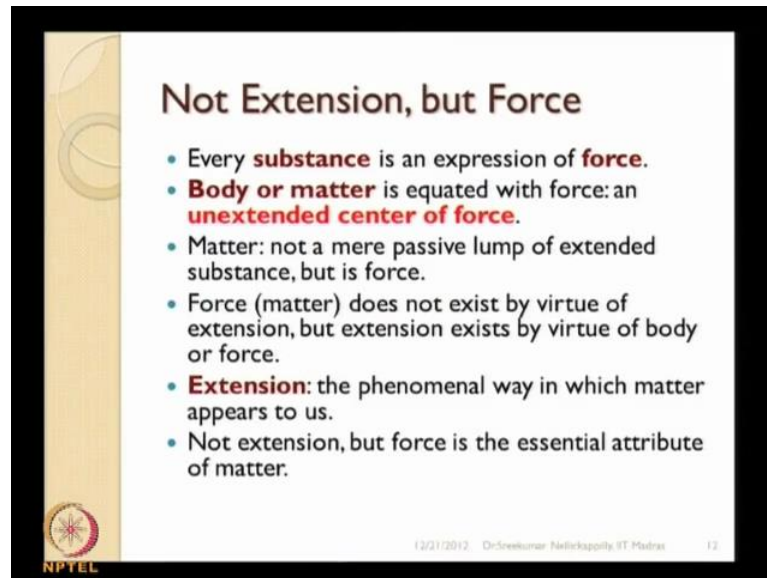
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Now here, he comes up with a very important concept which is actually the central notion of Monadology the concept of force the doctrine of force, it begins with Descartes. Descartes says that, quantity of motion is constant in this universe.

But Leibniz's says that, what happens when bodies come to rest and bodies begin to move motion since to be lost and gained how is it possible, how can motion will be lost and gained. Can we say that motion seems to be lost and gained? Then it violates the principle of continuity. The principle of continuity says that, nature makes no leaps, so that is not possible. Then, what is it that should be a ground of motion something more fundamental than motion which Descartes talks about.

What is that fundamental thing that is what he calls force or conatus? So, it is a force the tendency of the body to move or to continue it is motions and this force I repeat the force which is the tendency of a body to move or to continue it is motion which is constant in quality quantity according to him, so some motion to force.

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**Not Extension, but Force**

- Every **substance** is an expression of **force**.
- **Body or matter** is equated with force: an **unextended center of force**.
- Matter: not a mere passive lump of extended substance, but is force.
- Force (matter) does not exist by virtue of extension, but extension exists by virtue of body or force.
- **Extension**: the phenomenal way in which matter appears to us.
- Not extension, but force is the essential attribute of matter.

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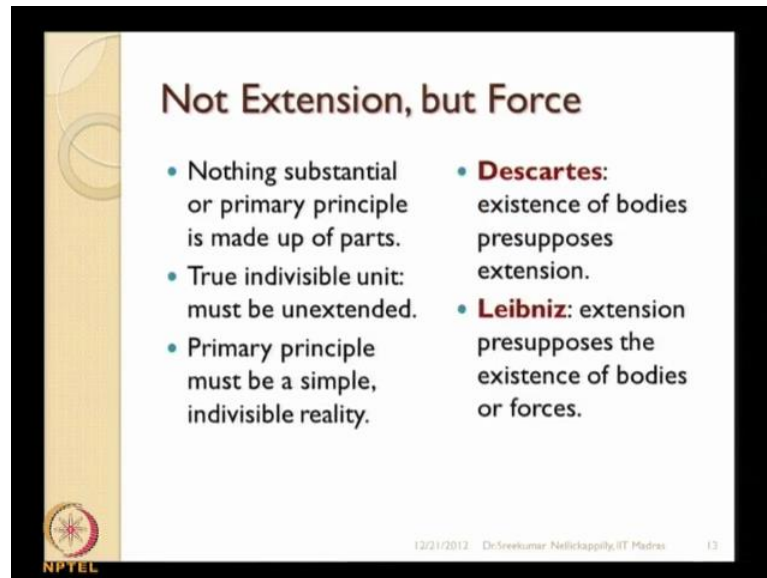
And it is not extension, but force according to Leibniz and every substance is an expression of force. So, it is with the motion of force Leibniz would define the very nature of substance every substance is an expression of force.

Body or matter is equated with this force an unextended center of force and everything even body, even bodies or matter is equated with the force and force is necessarily unextended. It is an unextended center of force matter is not a mere passive lump of extended substance, but is a force see I have already mentioned about democritus. Democritus talks about atoms, the atoms out of which the universe is made up of, but these atoms of Democritus are material in nature, they are physical. And for Descartes even these atoms are unextended they are to be understood in terms of force.

Everything the, whatever atoms exists are nothing, but expressions of different ways in which force get expressed. So, atoms are expression sorry, this matter whatever matter whatever body we have they are nothing but expressions of force. So, not a mere lump of passive lump of extended substance, but is a force and force does not exist by virtue of extension, but extension exists by virtue of body or force. So, he reverses the entire thing and extension is the phenomenal way in which matter appears to us.

So, that is not something which constitutes matter that is not something which is the essence of matter as Descartes would assert, but it is the phenomenal way in matter appear to us and it is not extension, but force is the essential attribute of matter.

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**Not Extension, but Force**

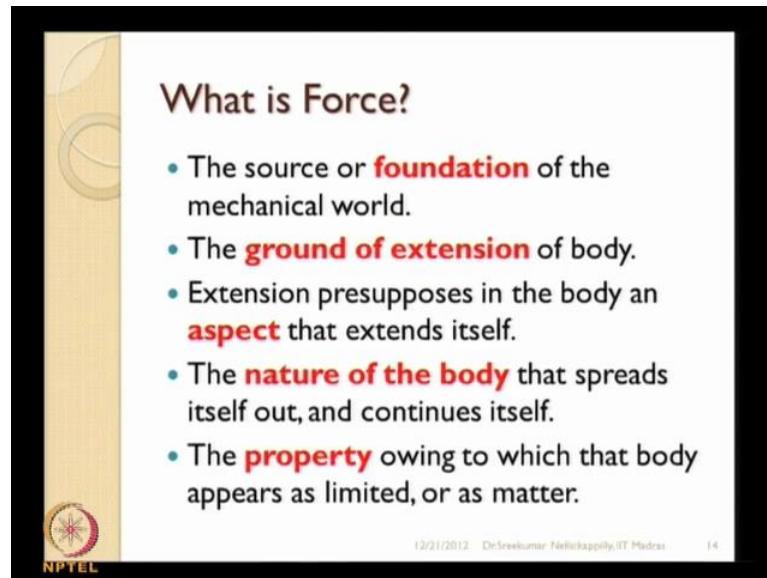
- Nothing substantial or primary principle is made up of parts.
- True indivisible unit: must be unextended.
- Primary principle must be a simple, indivisible reality.
- **Descartes:** existence of bodies presupposes extension.
- **Leibniz:** extension presupposes the existence of bodies or forces.

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And nothing substantial or primary principle is made up of parts, see if something is absolutely real if something is substantially real, if something is primary then that object should be simple. There is a very well established logical theory logical principle which almost all philosophers accept including Spinoza also talks about it and Leibniz also accepts it. True indivisible unit must be unextended if that is the case, if the primary substantial entity should not be made of a part should be simple; then it must be unextended. Primary principle must be a simple indivisible reality and Descartes says that, existence of bodies presupposes extension; Leibniz says that extension presupposes the existences of the bodies.

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**What is Force?**

- The source or **foundation** of the mechanical world.
- The **ground of extension** of body.
- Extension presupposes in the body an **aspect** that extends itself.
- The **nature of the body** that spreads itself out, and continues itself.
- The **property** owing to which that body appears as limited, or as matter.

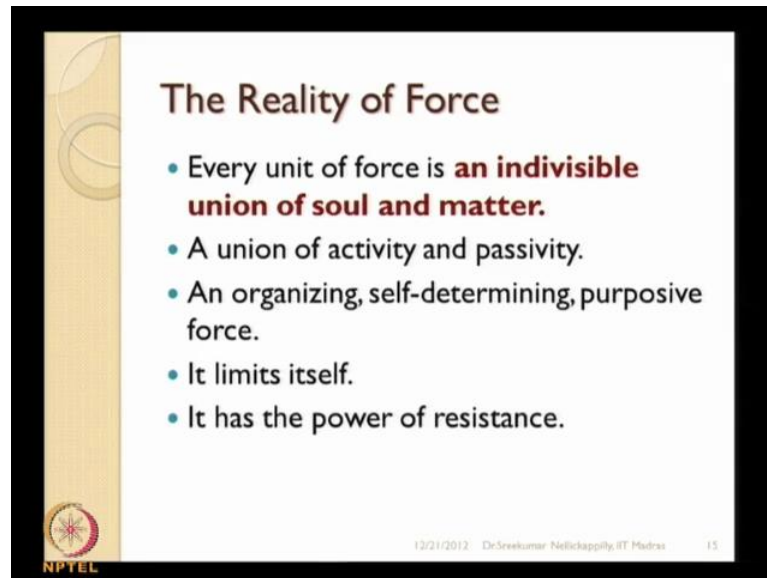
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Than what is force? We are been talking about force, and we saw that force lies at the foundation of everything; it is the foundational principles of matter it is the foundational principle of everything that exists. If that is the case the source or foundation of the mechanical world is to be understood as force according to Leibniz. It is the ground of extension of the body; it is the extension presupposes in the body an aspect that extends itself. So, it is as I have already mentioned it is more primary to the extension which Descartes part constitutes the essence of body because extension presupposes in body an aspect that extends itself and that is force. The nature of the body, it is the very nature of the body in that sense, ere sense that is spreads itself out and continues itself.

So, something which enables the very nature of that body to spread itself and continues to exists is what the force is. The property of the body earn to which the body appears as limited or as matter. So, is the essential aspect, it is the essence, it is a nature and it is essential property.

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### The Reality of Force

- Every unit of force is **an indivisible union of soul and matter.**
- A union of activity and passivity.
- An organizing, self-determining, purposive force.
- It limits itself.
- It has the power of resistance.

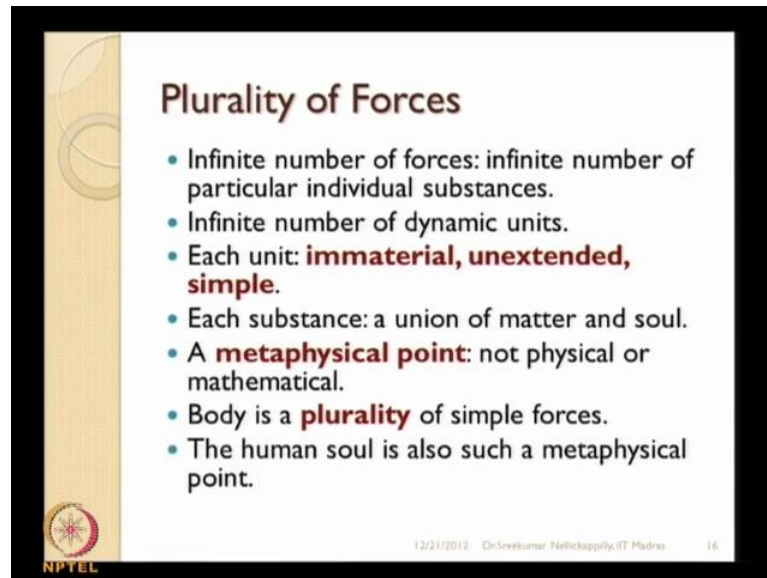
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Again we need to talk about reality of force every unit of force is an indivisible union of soul and matter. So, he makes another leap here, he has been talking about atoms and the force and all those things it appears to be you know simple entities. So, what is it? So, what does it constitute even he talks about body and he says that, what lies at the foundation of body is this force and what is it.

So, he says that, in force the reality of force; is constituting of what can be understood as an indivisible union of soul and matter. It is a union of activity and passivity mind and body in one sense we can say a union of activity and passivity and organizing self determining purpose is force and again it limits itself it has the power of resistance. So, all these things qualify what is to be understood as force.

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**Plurality of Forces**

- Infinite number of forces: infinite number of particular individual substances.
- Infinite number of dynamic units.
- Each unit: **immaterial, unextended, simple.**
- Each substance: a union of matter and soul.
- A **metaphysical point**: not physical or mathematical.
- Body is a **plurality** of simple forces.
- The human soul is also such a metaphysical point.

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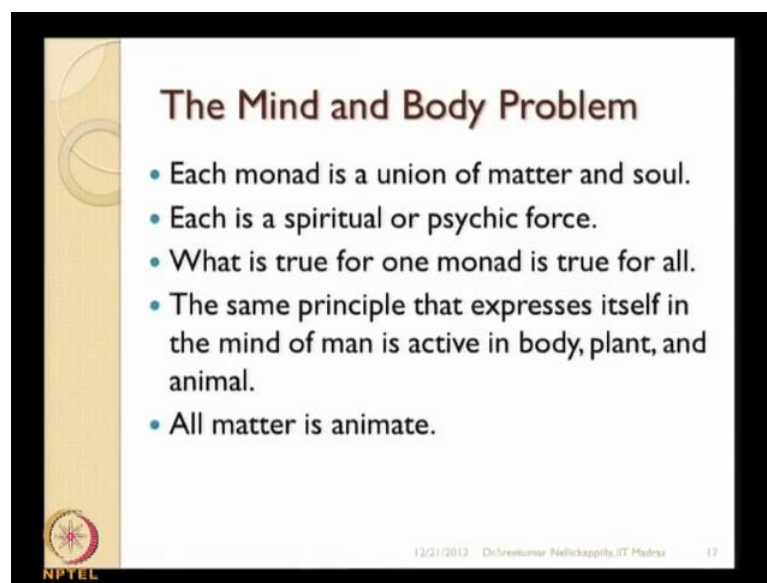
And at the same time Leibniz says that unlike his immediate predecessor Spinoza who tries to unify everything under the concept of substance by proclaiming that substance and composes the entire world and entire universe. Leibniz recognizes a plurality of forces; there are infinite numbers of forces, infinite number of particular individual substances.

So, substance is not one homogeneous entity, but infinite number of homogeneous entity we can say. Infinite number of autonomous entities, so each force is a substance and there are innumerable numbers of forces. Infinite number of dynamic units each unit is immaterial, unextended and simple. Immaterial because, they are not constitute even of matter in the sense that they are unextended and then they are simple which means, they cannot be divided further. So, the principle of atomism is implicative is it, but this atom is a kind of metaphysical act it is not a physical atom, it is a metaphysical atom.

Each substance is a union of matter and soul. So, in one sense you can say that, you know two principles which traditional philosophy thinks are, so fundamental in understanding that concept of being mind and body, body and soul. Leibniz is a trying to accommodate, these fundamental principle into one single entity known as substance or monad, which is a union of matter and soul. And it is a metaphysical point, not physical or mathematical it is a metaphysical point.

Body is a plurality of simple forces and the human soul is also such a metaphysical point. So, it is very interesting here, Leibniz says that, everything in this universe is composed of or this entire universe is composed of a plurality of infinite number of such forces such metaphysical points such metaphysical atoms. If that is the case then, what about the body and what about the soul, what about things on this world what about mountains and trees and stones and rocks and other things, are they also having souls? Yes, apparently yes because everything that exists, everything that is present here, is constitutive of monads and each monad is a union of body and soul. If each monad is a union of body and soul and it is out of monads that everything is constituted everything is constructed, then everything in this universe should have body and soul very interesting.

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The slide is titled "The Mind and Body Problem" and contains five bullet points. The slide has a white background with a black border. On the left side, there is a vertical yellow bar with a circular logo at the bottom. The logo features a red and white design with the letters "NPTEL" below it. In the bottom right corner, there is small text: "12/21/2013 Dr. Sreelakshmi Nallakoppa IIT Madras 17".

### The Mind and Body Problem

- Each monad is a union of matter and soul.
- Each is a spiritual or psychic force.
- What is true for one monad is true for all.
- The same principle that expresses itself in the mind of man is active in body, plant, and animal.
- All matter is animate.

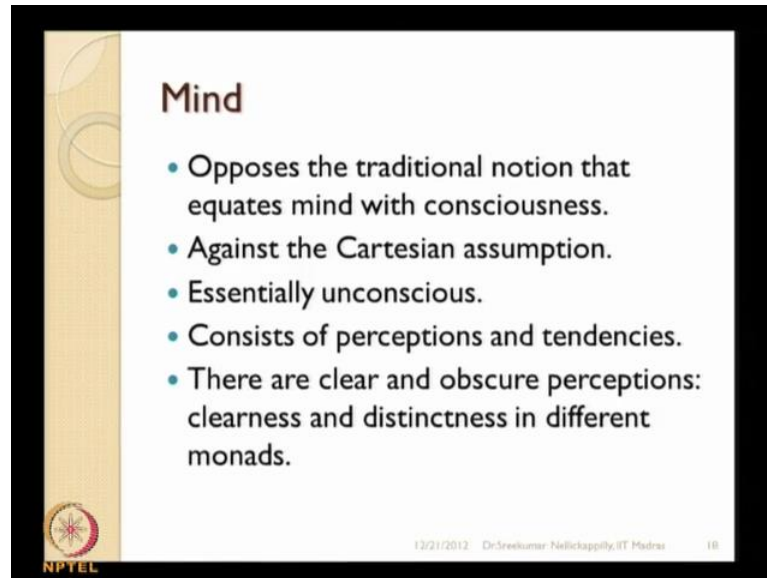
The mind body problem now comes back in a very different fashion in Leibniz philosophy, each monad is a union of matter and soul each is a spiritual or psychic force, what is true for one monad is true for all. So, he responds to the craving for unity. So, what is true for one monad should be true for all monads? So, the entirety the entirety of reality is brought in to this concept of monad. The same principle that expresses itself in the mind of man is active in body plant and animal and everything in this universe.

So, it is a same principle. So, harmonizing I mentioned earlier that, this craving for harmony is so central to all these philosophers, and it is particularly more visible in



Leibniz and it very interesting in Leibniz because, Leibniz on the one hand maintains pluralism. Pluralism of forces, pluralism of monads metaphysical points and on the other hand, he explains that there is a unity there is a harmony all mater is animate.

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**Mind**

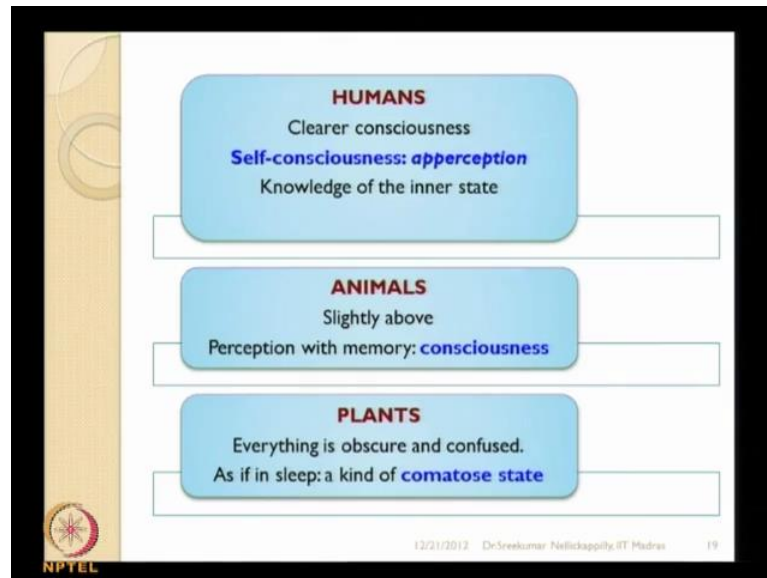
- Opposes the traditional notion that equates mind with consciousness.
- Against the Cartesian assumption.
- Essentially unconscious.
- Consists of perceptions and tendencies.
- There are clear and obscure perceptions: clearness and distinctness in different monads.

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And what is in mind opposes the traditional notion that equates mind with consciousness, it is quite commonsensical, it is a dominant Cartesian view of conceiving mind as or equating mind with consciousness as Descartes says you know, every mind thinks mind even thinks when it goes to sleep. So, there is not a moment in which the mind ceases to think essentially, what Leibniz says is that you know opposing all these accepted views about mind and consciousness under relationship. Leibniz asserts that, mind is essentially unconscious, consists of perceptions and tendencies and there are clear and obscure perceptions clearness and distinctness in different monads.

So, minds since every monads is a union of soul and body every monad has this perception the ability to perceive, but the clarity the clearness and distinguish vary from monad to monad, that makes this difference in the clarity and distinctiveness make one monad different from another. Every monad is capable of perception because there is mind and body in every monad.

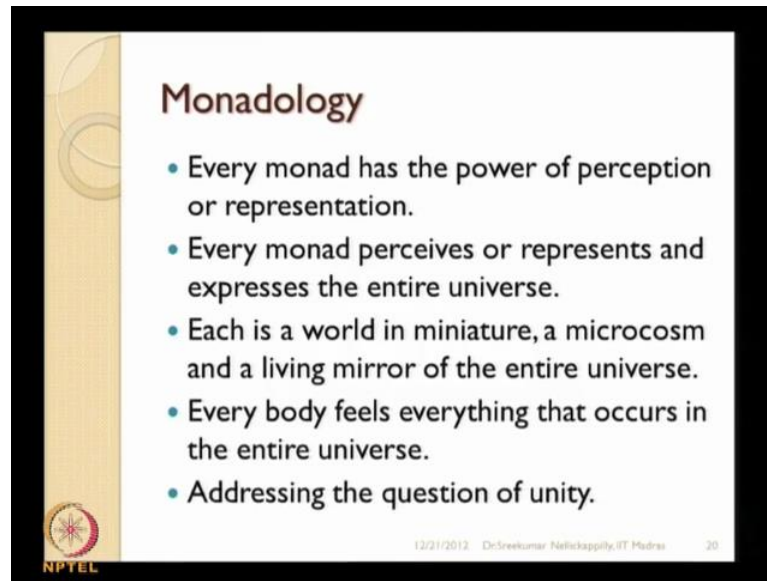
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Let us see a hierarchy. So, it begins with the plants in the bottom. So, the plants everything is obscure and confused as if in sleep a kind of comatose state. But slightly above you have animals, slightly above perception with memory which is consciousness.

And in the case of humans, we go still above there is clearer consciousness self consciousness or apperception and knowledge of the inner state all these things are present the case of man, but fundamentally all are constitutive of monads in the case of man the consciousness is clearer. In the case of animals the consciousness is not really clear, but there is some consciousness is present, but in the case of plants and it is completely in a dormant state or obscure and confused.

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**Monadology**

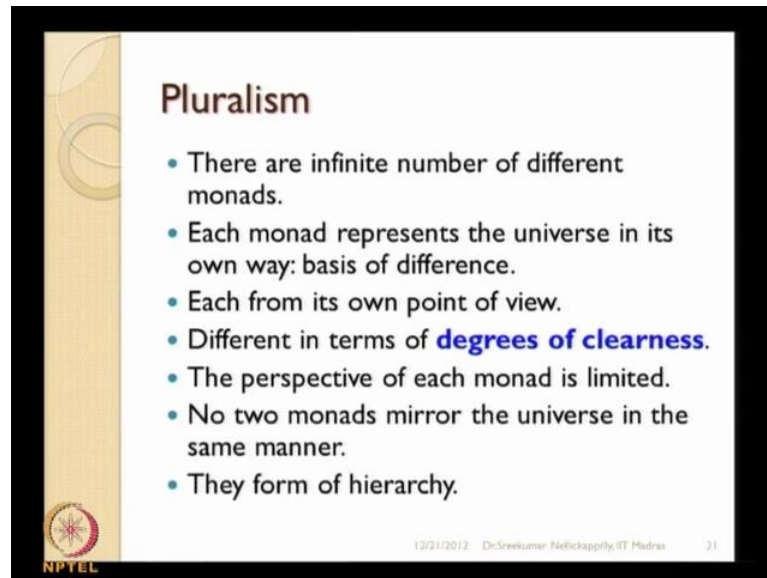
- Every monad has the power of perception or representation.
- Every monad perceives or represents and expresses the entire universe.
- Each is a world in miniature, a microcosm and a living mirror of the entire universe.
- Every body feels everything that occurs in the entire universe.
- Addressing the question of unity.

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And in this context Monadology is introduced every monad has the power of perception or representation because; every monad is a union of mind and body. So, the power of perception or representation every monad perceives or represents and expresses the entire universe. This is the beauty of leibnization system he says that, every monad is a universe in itself. It is absolutely independent of other monad and each monad represents perceives the entire universe each is a world in a miniature a microcosm and a living mirror of the entire universe.

So, then everybody feels everything that occurs in the entire universe. So, there is the fundamental unity and harmony is underlined, every monad perceives and represents not just what is in immediately around it, but the entire universe. So, on the one hand, it is unique and distinct, but on the other hand it is like all other monads addressing the question of unity.

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## Pluralism

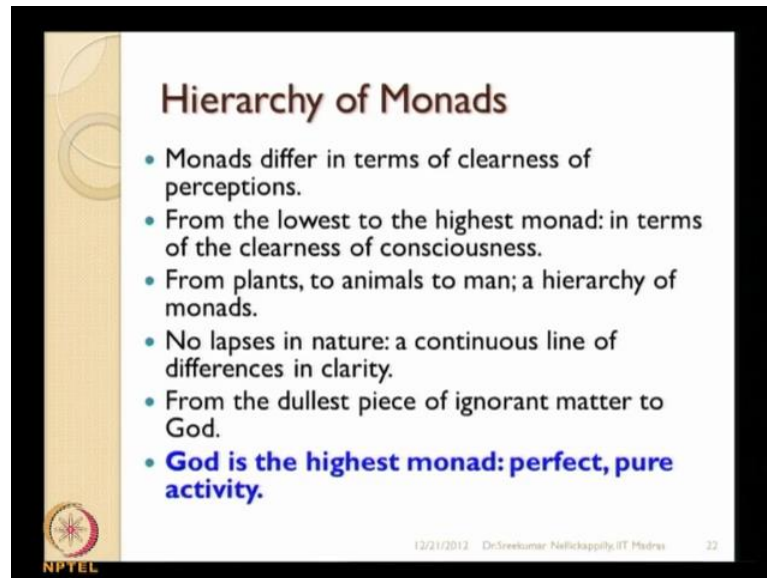
- There are infinite number of different monads.
- Each monad represents the universe in its own way: basis of difference.
- Each from its own point of view.
- Different in terms of **degrees of clearness**.
- The perspective of each monad is limited.
- No two monads mirror the universe in the same manner.
- They form of hierarchy.

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And here comes the pluralism, there are infinite number of different monads. What you mean by infinite number of, in what sense can you that one monad is different from another. On the one hand, Leibniz has stated that each monad is a union of body and mind body and soul is, that is the case in what sense one monad is different from other. Each monad represents the universe in it is own way, so they represent the universe differently.

As I mentioned the clearness the clarity and the distinctiveness of perception and representation vary from monad to monad, and there is a gradation; there is a hierarchy each from it is own point of view. Different in terms of degrees of clearness, the perspective of each monad is limited, no two monads mirror the universe in the same way, if they do that than they are not true they are one and the same the form of hierarchy, and this as another very important aspect of leibnization philosophy the hierarchy of monads.

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**Hierarchy of Monads**

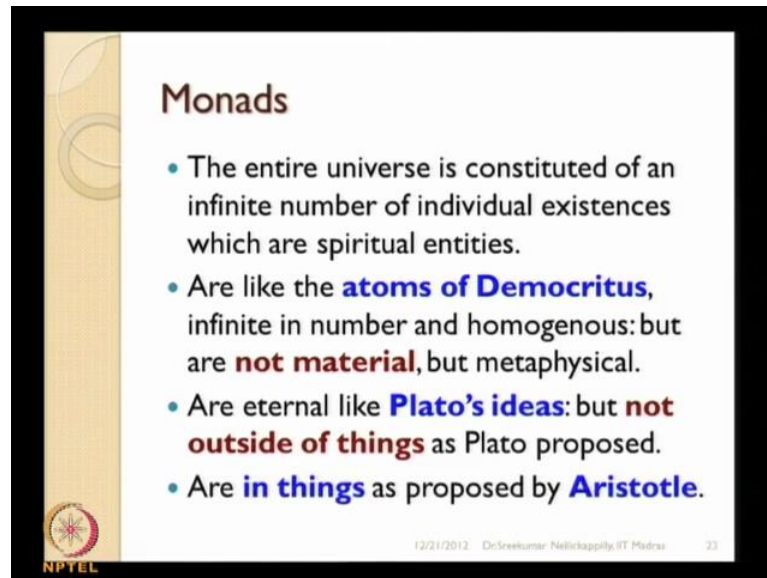
- Monads differ in terms of clearness of perceptions.
- From the lowest to the highest monad: in terms of the clearness of consciousness.
- From plants, to animals to man; a hierarchy of monads.
- No lapses in nature: a continuous line of differences in clarity.
- From the dullest piece of ignorant matter to God.
- **God is the highest monad: perfect, pure activity.**

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Monads differ in terms of clearness and perception I have already explained this, from the lowest to the highest monad in terms of clearness or consciousness the lowest will have the most obscure the dullest form of perception and representation just above that the level of consciousness, is slightly high just above that further high and like that it goes it takes us to a gradation a kind of hierarchy from lower to the from plants to animals to man; a hierarchy of monads. No lapse in nature it is continues line of differences in clarity, there is no lapses in between one after the other it goes up and up and up.

From this dullest piece of ignorant matter to God and God is the highest the highest monad the perfect monad the pure activity which is the monad of all monads.

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## Monads

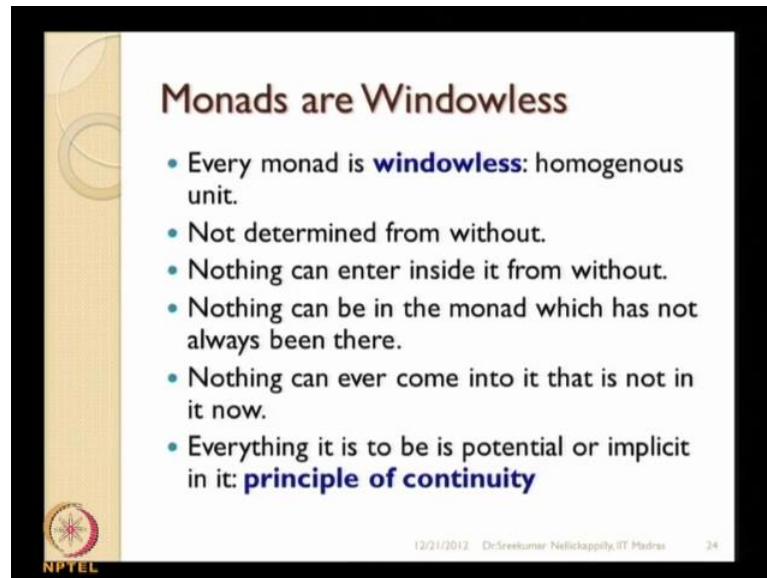
- The entire universe is constituted of an infinite number of individual existences which are spiritual entities.
- Are like the **atoms of Democritus**, infinite in number and homogenous: but are **not material**, but metaphysical.
- Are eternal like **Plato's ideas**: but **not outside of things** as Plato proposed.
- Are **in things** as proposed by **Aristotle**.

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Again the entire universe is constituted of an infinite number of individual existences which are spiritual entities I have already explained this, as I mentioned earlier I am just going to elaborate the little bit here that we are like atoms of Democritus, infinite in number and homogenous Democritus says that, there are infinite number of atoms each one is homogenous like that the monads are also independent of each other and homogenous: but they are not material, but metaphysical.

So, that is the way he is different from leibnization monad is different from the Democritus atom. They are like eternal like Plato's ideas, but not outside of things Plato's ideas are outside they are transcendent, but for him they are not they are here they are here they are in things as proposed by Aristotle.

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**Monads are Windowless**

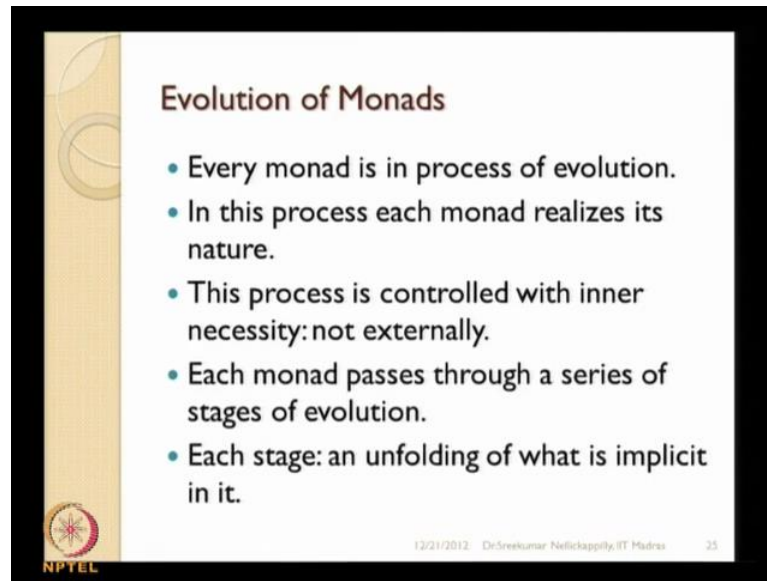
- Every monad is **windowless**: homogenous unit.
- Not determined from without.
- Nothing can enter inside it from without.
- Nothing can be in the monad which has not always been there.
- Nothing can ever come into it that is not in it now.
- Everything it is to be is potential or implicit in it: **principle of continuity**

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And another very important aspect is monads are windowless every monad is windowless homogenous unit not determined from without every monad is a unit a universe in miniature as I have already mentioned autonomous universe in miniature which is not determine some without, but nothing can enter inside it from outside.

And nothing can be in the monad which has not always been there, so monad is a self sufficient unit always. Nothing can ever come into it that is not in it now, and everything it is to be is potential or implicit in it this is what is called as a principle of continuity. So, at the monad is a self sufficient unit as self sufficient universe and universe in miniature.

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**Evolution of Monads**

- Every monad is in process of evolution.
- In this process each monad realizes its nature.
- This process is controlled with inner necessity: not externally.
- Each monad passes through a series of stages of evolution.
- Each stage: an unfolding of what is implicit in it.

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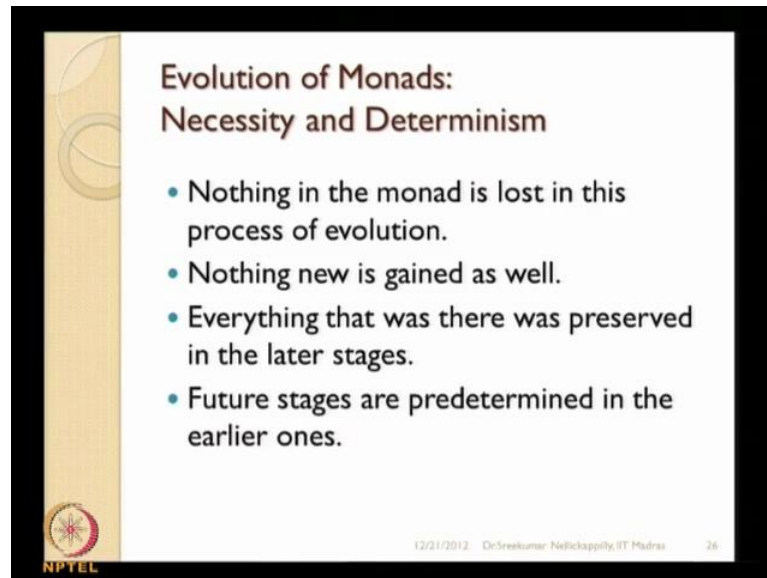
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And now he talks about, evolution of monads every monad the process of evolution. There should be some theology, which Leibniz was complaining about Spinoza. Leibniz complaint about Spinoza was that Spinoza system would not leave any rule for any purpose of theology though of course, Spinoza talks about some purpose human mind as a purpose to know God be one with God, but again you know he had a system which relies more on the concept of necessity than on freedom. But here, Leibniz would like to accommodate this, the (Refer Time: 32:28) the notion of theology every monad is in the process of evolution in this process each monad realizes its nature.

This process is controlled with inner necessity: and not externally, because each monad is windowless. Each monad passes through a series of stages of evolution goes up and up each stage an unfolding of what is implicit in it. So, this is very important because it does not gain anything from outside as an impetus for evolution, but every process of evolution is nothing, but an unfolding of what is already there inside each monad. So, in this through this process of unfolding of its own potentials unfolding of implicit potentials monads will go up and up in the scale of evolution.



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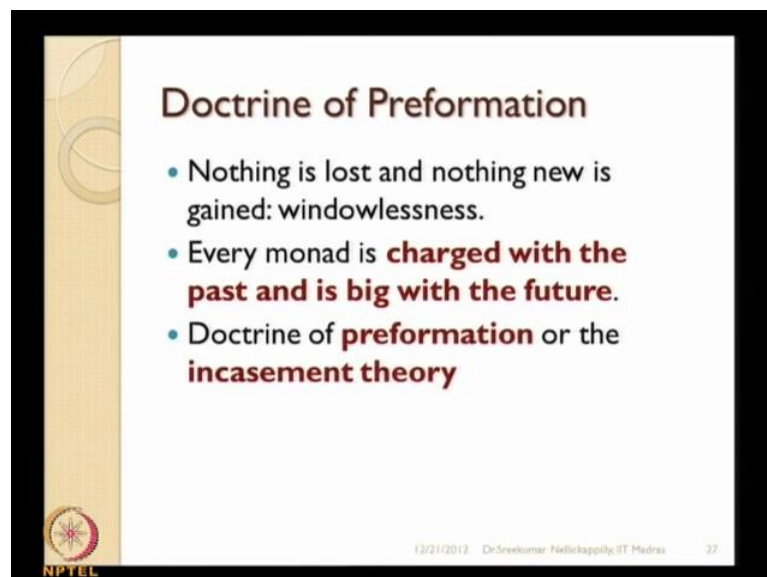
**Evolution of Monads:  
Necessity and Determinism**

- Nothing in the monad is lost in this process of evolution.
- Nothing new is gained as well.
- Everything that was there was preserved in the later stages.
- Future stages are predetermined in the earlier ones.

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And nothing in the monad is lost in this process, nothing new is gained as well everything that was there was preserved in the later stages, future stages are predetermined in the earlier ones and this is called the doctrine of preformation.

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**Doctrine of Preformation**

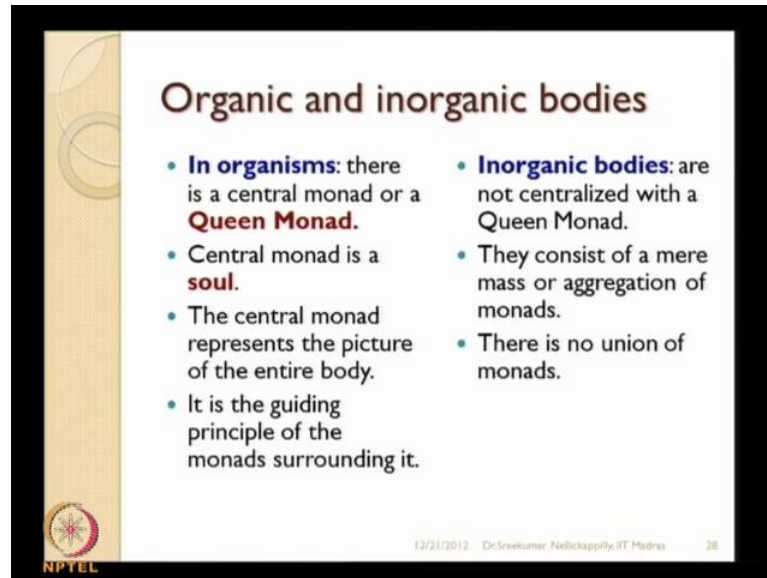
- Nothing is lost and nothing new is gained: windowlessness.
- Every monad is **charged with the past and is big with the future.**
- Doctrine of **preformation** or the **incasement theory**

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Nothing is lost and nothing new is gained: windowlessness. Every monad Leibniz says is, charged with the past and is big with the future. Charged with the past because nothing is lost everything is preserved, nothing is lost from the past everything is preserved and nothing is gained in future, but only unfolded in future what happens is

that it unfold what is already implicitly present. So, it is big with the future charged with the past and big with the future and this is called as the doctrine of preformation or the encasement theory.

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**Organic and inorganic bodies**

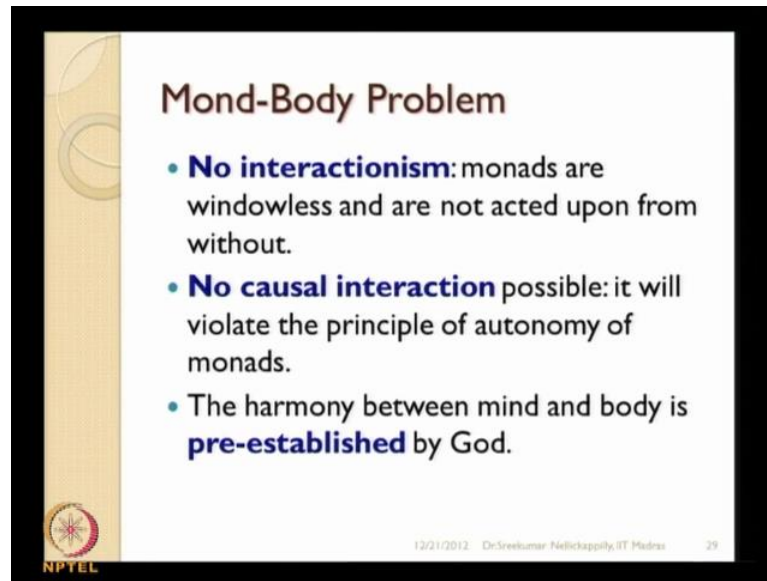
- **In organisms:** there is a central monad or a **Queen Monad**.
- Central monad is a **soul**.
- The central monad represents the picture of the entire body.
- It is the guiding principle of the monads surrounding it.
- **Inorganic bodies:** are not centralized with a Queen Monad.
- They consist of a mere mass or aggregation of monads.
- There is no union of monads.

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Now, what about the organic and inorganic bodies; I have already raised this issue we are talking about minds. There are entities with mind, but there are entities apparently which do not have any minds for example, rocks chairs tables what about them. So, here says that in organisms there is a central monad or a queen monad which function like a unifying force which function like a regulating force, which is the purpose, so which gives the direction for all other monads or rather to put it in other words, which organizes the monads. Central monad is a soul; the central monad represents the picture of the entire body. It is the guiding principles of the monads surrounding it.

On other hand, in organic bodies are not centralized by a queen monad there is no queen monad to centralize it to organize it. They consist of a mere mass or aggregation of monads, there is no union of monads and it is in this sense now we come to the mind body problem.

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### Mond-Body Problem

- **No interactionism:** monads are windowless and are not acted upon from without.
- **No causal interaction** possible: it will violate the principle of autonomy of monads.
- The harmony between mind and body is **pre-established** by God.

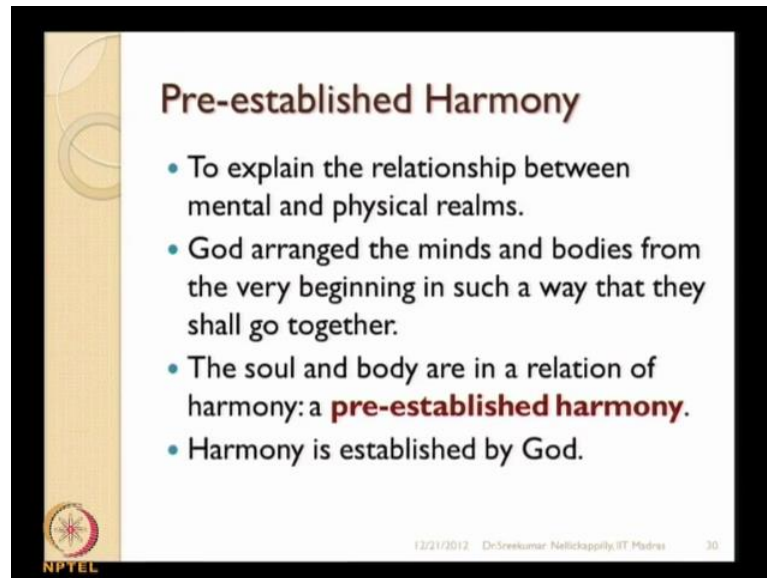
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So, Leibniz would never accept interactionism, because monads are windowless and they cannot interact there is not acted upon from without, everything that happens to a monad is nothing, but only unfolding of what is in currently present that cannot be a causal interaction.

Because causal interaction is possible then it violate the principle of autonomy of monads, then it implies that an autonomous monad is being caused to something is caused on it from something out side of it which is impossible. The harmony between mind and body it is here, Leibniz introduces the most imported concept of his theoretical frame work the pre-established harmony, to explain this he has been talking about the hierarchy of the monads. He has been talking about mind and body problems, now how do you explain this apparent introduction interaction between mind and body.

A problem which actually worried Descartes a lot and his interactionism is not a very satisfactory response or a reply to the problem and you know Spinoza was trying to sort of resolve it with his pointillism which was also not acceptable for Leibniz, and many others. Now Leibniz comes up with a solution, which an apparent solution to this problem the harmony between mind and body is pre-established by God.

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The slide features a title 'Pre-established Harmony' in a dark red font. Below the title is a bulleted list of four points. The first point is 'To explain the relationship between mental and physical realms.' The second point is 'God arranged the minds and bodies from the very beginning in such a way that they shall go together.' The third point is 'The soul and body are in a relation of harmony: a **pre-established harmony**.' The fourth point is 'Harmony is established by God.' The slide also includes an NPTEL logo in the bottom left corner and a footer with the date '12/21/2012', the name 'Dr.Sreekumar Nellikkappilly, IT Madras', and the number '30'.

### Pre-established Harmony

- To explain the relationship between mental and physical realms.
- God arranged the minds and bodies from the very beginning in such a way that they shall go together.
- The soul and body are in a relation of harmony: a **pre-established harmony**.
- Harmony is established by God.

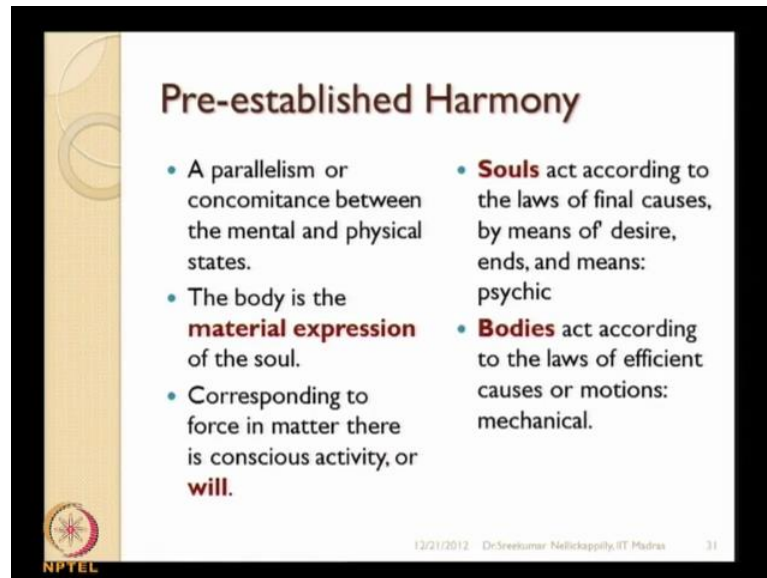
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So, the notion of pre-established harmony to explain the relationship between mental and physical realms, God arranged the minds and bodies from the very beginning in such a way that they shall go together the soul and body are in a relation of harmony a pre are there they are not interrelated.

In the sense that one causes certain moments in the other, see when want to move my hand for example, when I want to raise my hand my mind wants it and my body does it my hand goes up, but this is where you know I sort of have a tendency to ascribe a kind of causal relationship, something which in my mind a will in the mind causes a motion in the body. This is in the normally interactionism which is not acceptable for various reasons for logical reason primarily and he says that this is because of the harmony that is pre-established which is there in the universe.

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**Pre-established Harmony**

- A parallelism or concomitance between the mental and physical states.
- The body is the **material expression** of the soul.
- Corresponding to force in matter there is conscious activity, or **will**.
- **Souls** act according to the laws of final causes, by means of desire, ends, and means: psychic
- **Bodies** act according to the laws of efficient causes or motions: mechanical.

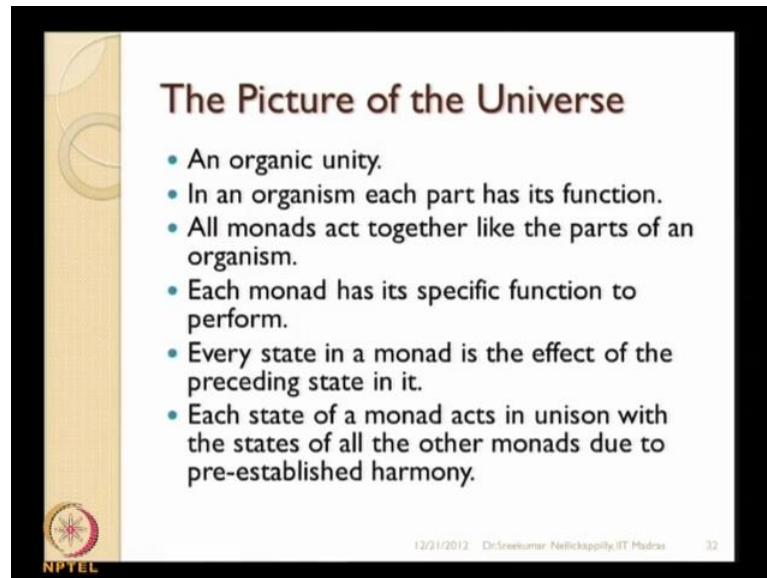
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We will explain it harmony is established by God and what is pre-established harmony a parallelism or concomitance between the mental and physical states, they run parallel there is a kind of concomitance one parallel to the other; does not mean that they are inter related. So, whatever happens here there is a corresponding thing happens here as well.

But that does not mean that this has caused this, they just happen together or they just happen one after another and who make them happen one and after another God that harmony is pre-established. The body is the material expression of the soul corresponding to the force in matter there is conscious activity or will and again souls act according to the laws of final causes by means of desire ends and means which are psychic and bodies act according to the laws of efficient causes or motions which are mechanical.

So, one sense the capsicum dualism is maintained which says that there are two different principles or laws that regulate these two domains, but then the same problem which Descartes faced, if the two domains are regulated and controlled by two different set of norms and rules that how do they interact. And Descartes faced lot of troubles in explaining this and what Leibniz says is that, the harmony between the two independent autonomous domains is something which is pre-established by God.

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The slide is titled "The Picture of the Universe" and contains a bulleted list of six points. The slide has a decorative vertical bar on the left with a circular pattern and an NPTEL logo at the bottom left. The footer at the bottom right includes the date "12/21/2012", the name "Dr. Sreelakshmi Nellikappilly, IIT Madras", and the number "32".

### The Picture of the Universe

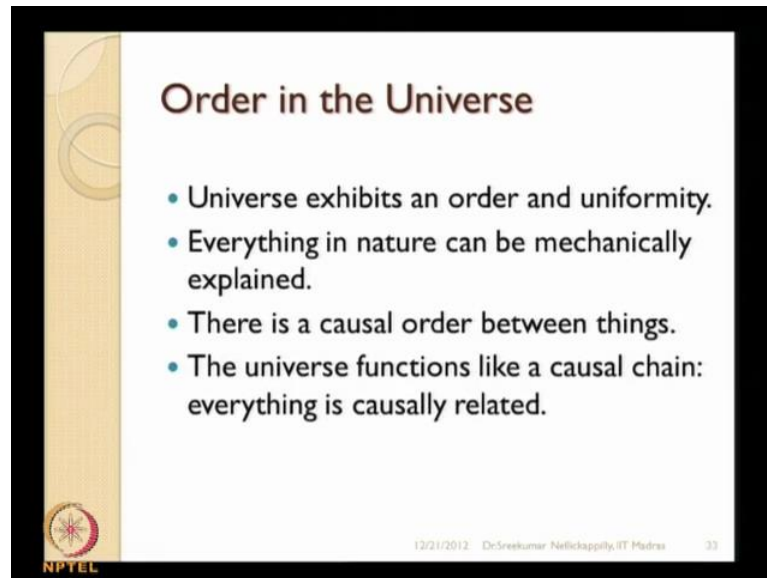
- An organic unity.
- In an organism each part has its function.
- All monads act together like the parts of an organism.
- Each monad has its specific function to perform.
- Every state in a monad is the effect of the preceding state in it.
- Each state of a monad acts in unison with the states of all the other monads due to pre-established harmony.

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The picture of the universe is an organic unity in an organism each part has its function all monads act together like the parts of an organism, each monad has its specific function to perform every state in a monad is an effect of the preceding state in it and each state of a monad acts in unison with the states of all the other monads due to the pre-established harmony.

So, with theory of with the doctrine of pre-established harmony Leibniz results many of these problems which his predecessors were rather faced of course, he faces his own problems.

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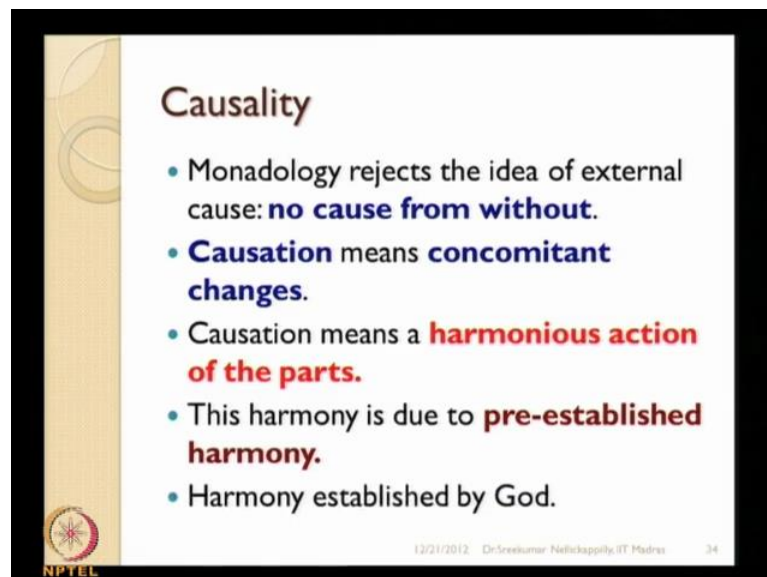
**Order in the Universe**

- Universe exhibits an order and uniformity.
- Everything in nature can be mechanically explained.
- There is a causal order between things.
- The universe functions like a causal chain: everything is causally related.

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So, the order of universe order that the universe exhibits is explained with this, universe exhibits an order and uniformity. Everything in nature can be mechanically explained, causal order between things the universe functions like a causal chain everything is causally related.

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**Causality**

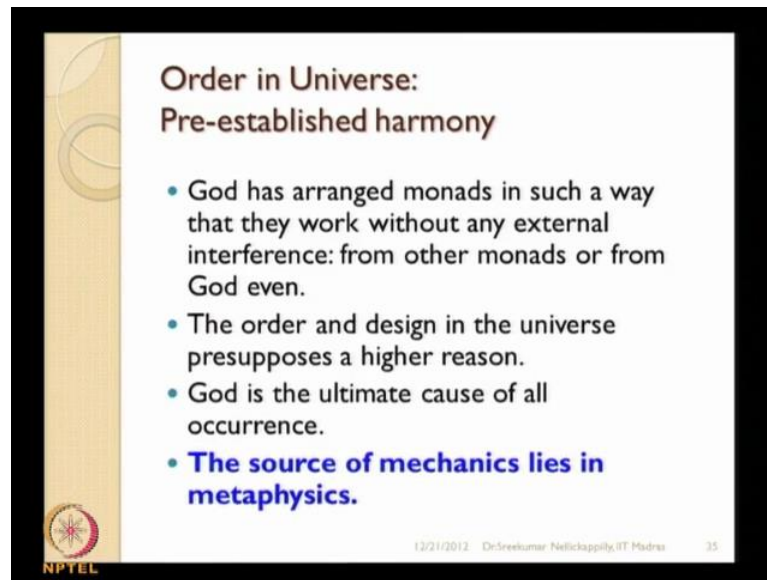
- Monadology rejects the idea of external cause: **no cause from without.**
- **Causation** means **concomitant changes.**
- Causation means a **harmonious action of the parts.**
- This harmony is due to **pre-established harmony.**
- Harmony established by God.

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But causality Monadology rejects this causality, the notion of causalities cannot be accommodated it rejects the idea of external cause: no cause from without causation means concomitant changes. So, some changes happens here corresponding change

happens here as well, does not mean that this has produced that they happen concurrently. Causation means a harmonious action of the parts not that one causes the other, but they act together the harmony is due to the pre-established harmony which is established by God.

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The slide features a title 'Order in Universe: Pre-established harmony' in a dark font. Below the title is a bulleted list of four points. The first three points are in black text, and the fourth point is in blue text. The slide includes a vertical decorative bar on the left with a circular logo at the bottom. At the bottom right, there is a small text string '12/21/2012 Dr.Sreekanth Nellikoppil@IT Madras 35'.

**Order in Universe:  
Pre-established harmony**

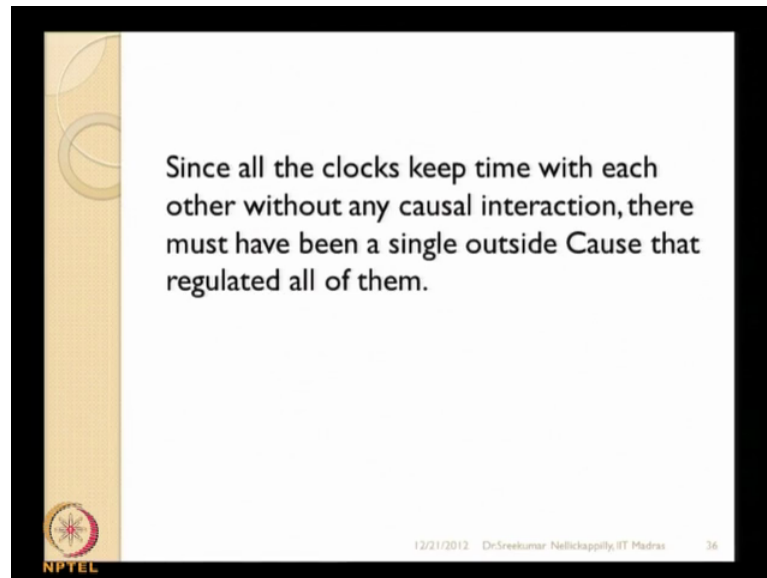
- God has arranged monads in such a way that they work without any external interference: from other monads or from God even.
- The order and design in the universe presupposes a higher reason.
- God is the ultimate cause of all occurrence.
- **The source of mechanics lies in metaphysics.**

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And the God has arranged monads in such a way that they work without any external interference: from other monads or from God even. The order and design in the universe presupposes a higher reason, this is how he establishes the existence of God. God is the ultimate cause of all of occurrences the source of mechanics lies in metaphysics. So, everything act ultimately everything will be converged to this idea of God, everything is a made significant and meaningful with the help of this guiding principle God.

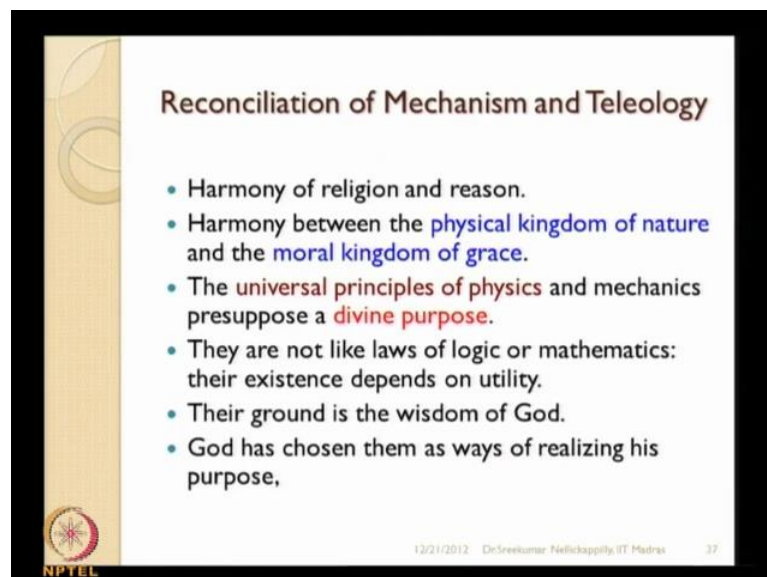


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Since all clocks keep time with each other without any causal interaction there must have been a single outside course that regulated all of them. So, that regulation is the pre-established harmony.

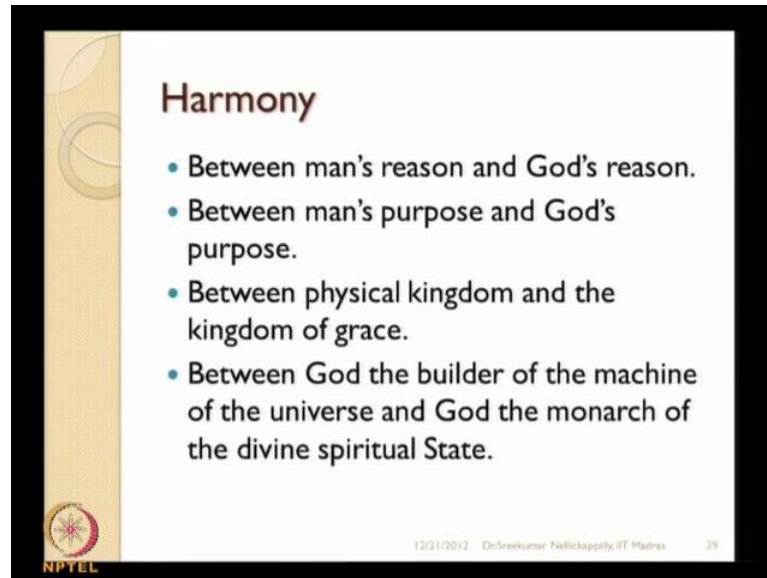
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So, here mechanism is reconciled with teleology harmony of religion and reason harmony between the psychic physical kingdom of nature and the moral kingdom of grace the universal principles of physics and mechanics presuppose a divine purpose, which is the purpose of God the purpose is to harmonize.

They are not like laws of logic or mathematics, their existence depends on utility and their ground is the wisdom of God and God has chosen them as ways of realizing his purpose.

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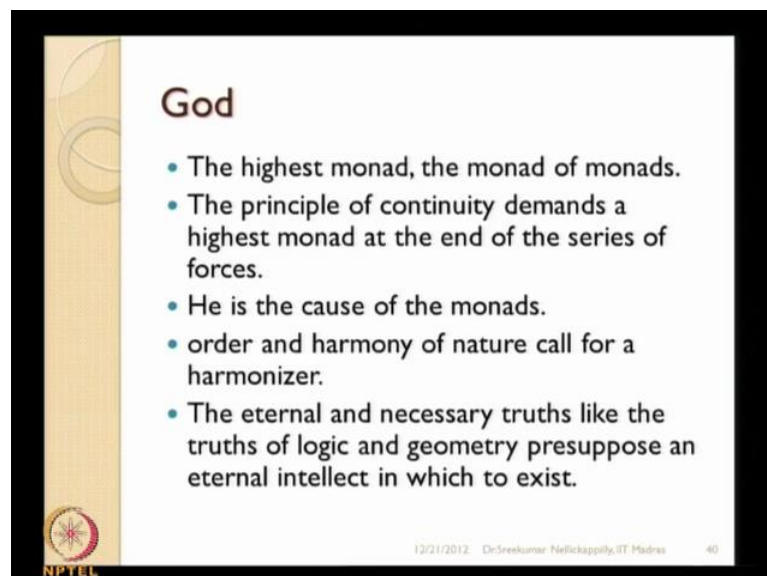
**Harmony**

- Between man's reason and God's reason.
- Between man's purpose and God's purpose.
- Between physical kingdom and the kingdom of grace.
- Between God the builder of the machine of the universe and God the monarch of the divine spiritual State.

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This is primarily because there is a notion of harmony, harmony between mans reason and Gods reason between mans purpose and Gods purpose between physical kingdom and the kingdom of grace which I have already explained, and between God the builder of machine of the universe and God the monarch of the divine spiritual state.

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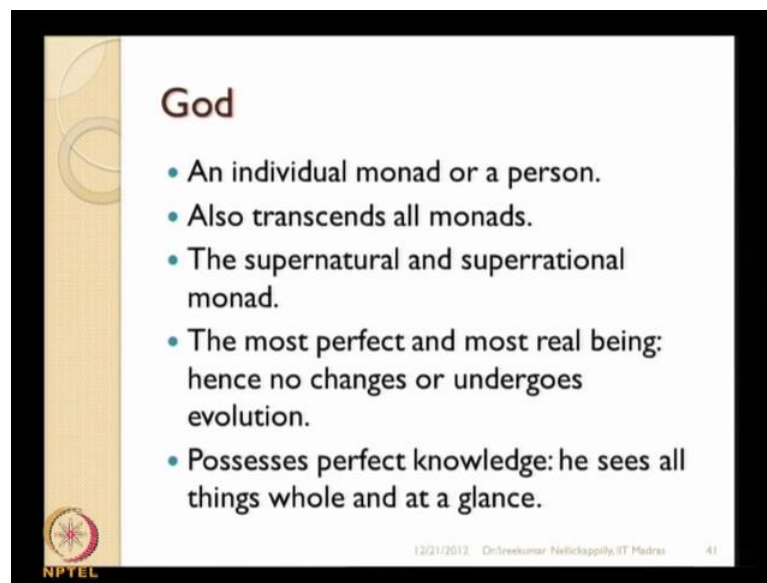
**God**

- The highest monad, the monad of monads.
- The principle of continuity demands a highest monad at the end of the series of forces.
- He is the cause of the monads.
- order and harmony of nature call for a harmonizer.
- The eternal and necessary truths like the truths of logic and geometry presuppose an eternal intellect in which to exist.

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And God according to him as I already mentioned, is a highest monad he is the monad of monads. The principle of continuity demands according to Leibniz the principle of continuity demands that, there should be highest monads at the end of the series of forces he is the cause of the monads. And order and harmony of nature call for a harmonizer and that is God, the eternal and necessary truths like the truths of logic and geometry presuppose an eternal intellect in which to exist.

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The slide features a title 'God' in a dark red font. Below it is a bulleted list of five points. The slide has a decorative left margin with a vertical gold bar and a circular graphic. At the bottom left is the NPTEL logo, and at the bottom right is the date and speaker information.

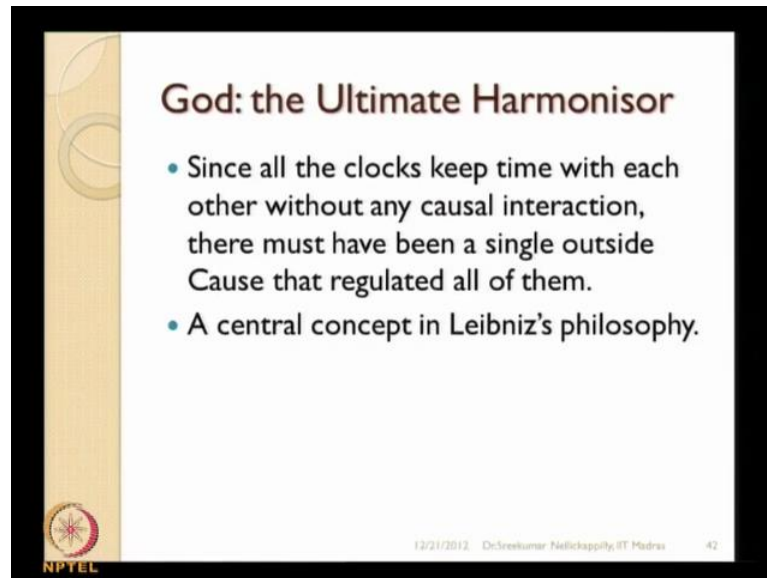
### God

- An individual monad or a person.
- Also transcends all monads.
- The supernatural and superrational monad.
- The most perfect and most real being: hence no changes or undergoes evolution.
- Possesses perfect knowledge: he sees all things whole and at a glance.

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And God is an individual monad person, also transcends all monads the supernatural and super rational monad, the most perfect and the most real being hence no changes or undergoes evolution. Possesses perfect knowledge he sees all things whole and at a glance. In one sense we can see that, Leibniz was has succeeded in appeasing the church appeasing the catholic church though his concept of God, if you follow the logical consequences is not really exactly as same as the God of theologian, but at the same time he maintain some of this features by saying that by being a monad like a person.

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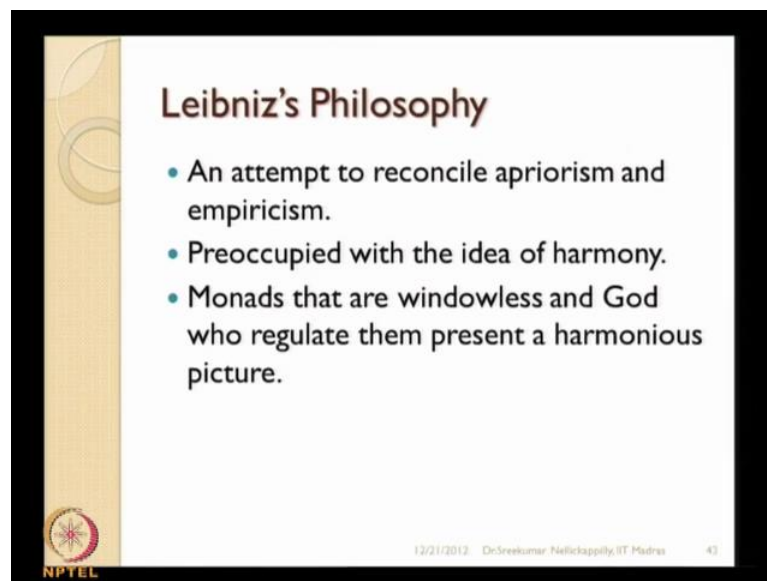


**God: the Ultimate Harmonisor**

- Since all the clocks keep time with each other without any causal interaction, there must have been a single outside Cause that regulated all of them.
- A central concept in Leibniz's philosophy.

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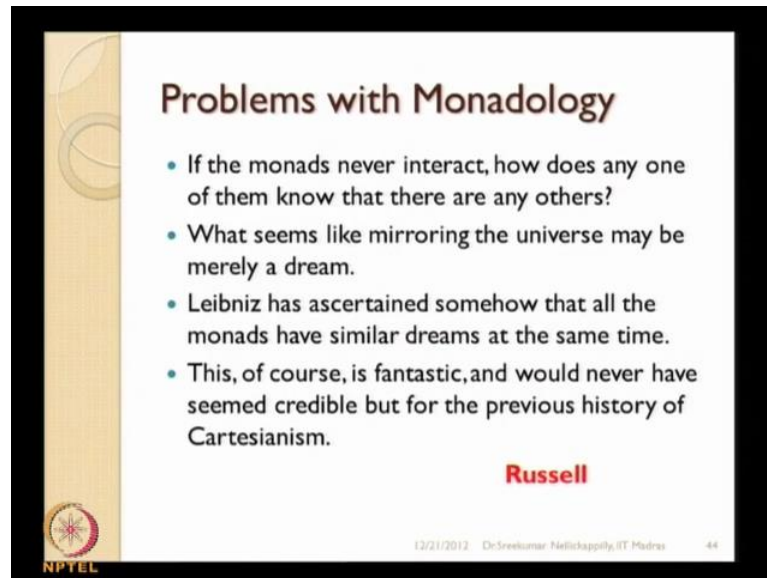
**Leibniz's Philosophy**

- An attempt to reconcile apriorism and empiricism.
- Preoccupied with the idea of harmony.
- Monads that are windowless and God who regulate them present a harmonious picture.

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He is a person the personality is recognized, but at the same time he transcends all other monads is super natural and super rational. A central concept Leibniz's philosophy, it is an attempt to reconcile apriorism of rationalism and empiricism which already the great empiric tradition is already there by the time of Leibniz. And attempt to reconcile rationalism which empiricism is continued by Emmanuel Kant later we will see that. And one important feature which we have seen is that, Leibniz in all his philosophy all his career was pre occupied with this concept this idea of harmony, and monads that are windowless and God who regulate them present a harmonious picture.

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**Problems with Monadology**

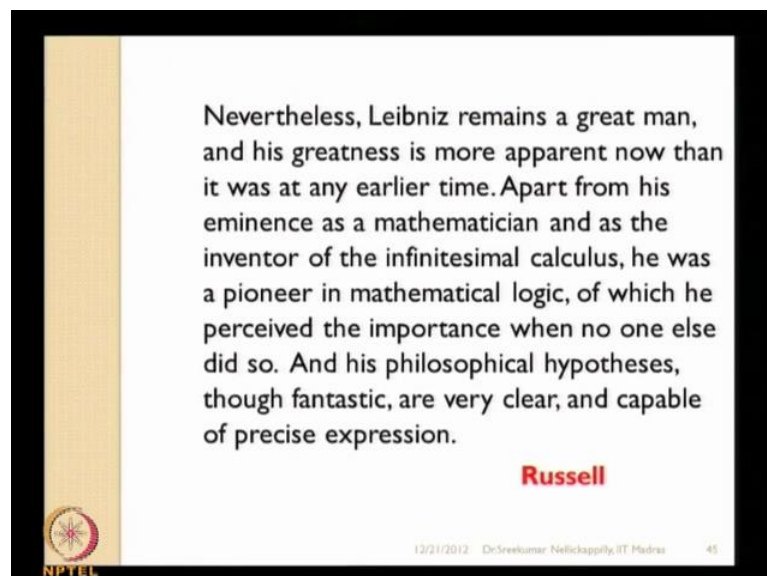
- If the monads never interact, how does any one of them know that there are any others?
- What seems like mirroring the universe may be merely a dream.
- Leibniz has ascertained somehow that all the monads have similar dreams at the same time.
- This, of course, is fantastic, and would never have seemed credible but for the previous history of Cartesianism.

**Russell**

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And here is something which Russell would say about some problems with Monadology if the monads never interact, how does anyone of them know that there are any others because he rejects interactionism, what seems like mirroring the universe may be merely a dream Leibniz has ascertained somehow that all the monads have similar dreams at the same time, but pre-established harmony this of course, is fantastic Russell says and would never have seemed credible, but for the previous history of cartesianism.

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Nevertheless, Leibniz remains a great man, and his greatness is more apparent now than it was at any earlier time. Apart from his eminence as a mathematician and as the inventor of the infinitesimal calculus, he was a pioneer in mathematical logic, of which he perceived the importance when no one else did so. And his philosophical hypotheses, though fantastic, are very clear, and capable of precise expression.

**Russell**

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And Russell makes another comment that he when he concludes the discussion on Leibniz philosophy says nevertheless Leibniz remains a great man and his greatness is more apparent now, than it was at any earlier time. Apart from his eminence as a mathematician and as the inventor of the infinitesimal calculus, he was a pioneer in mathematical logic, of which he perceived the importance when no one else did so. And his philosophical hypotheses, though fantastic, are very clear, and capable of precise expression.

Russell had reasons to admire Leibniz because Russell was also a mathematician and a musician. And later when he Russell even wrote a book on Leibniz and when he developed his mathematical logic he acknowledges the influence of Leibniz. But for our purpose Leibniz is definitely one of the most important thinkers though as Russell himself as a once observed though he was a great thinker though he was not a great human being as Spinoza was.

Thank you.