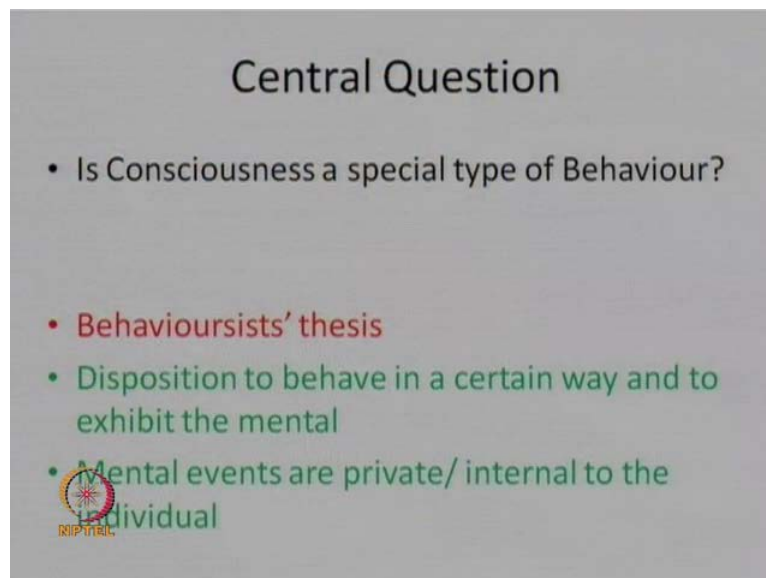


Contemporary issues in Philosophy of Mind and Cognition
Prof. Ranjan K. Panda
Prof. Rajakishore Nath
Department of Humanities and Social Science

Indian Institute of Technology, Bombay
Lecture No. # 13
Mind-Body
Identity Theory

Today, we are going to discuss mind body identity theory, we have already discussed behaviorism in this context. Today's discussion will focus on particularly Armstrong thesis on mind body identity theory and u t place famous hypothesis that is consciousness of a brain process. So, today we will be discussing about Armstrong in the beginning and then later we will discuss place hypothesis.

(Refer Slide Time: 00:57)



Central Question

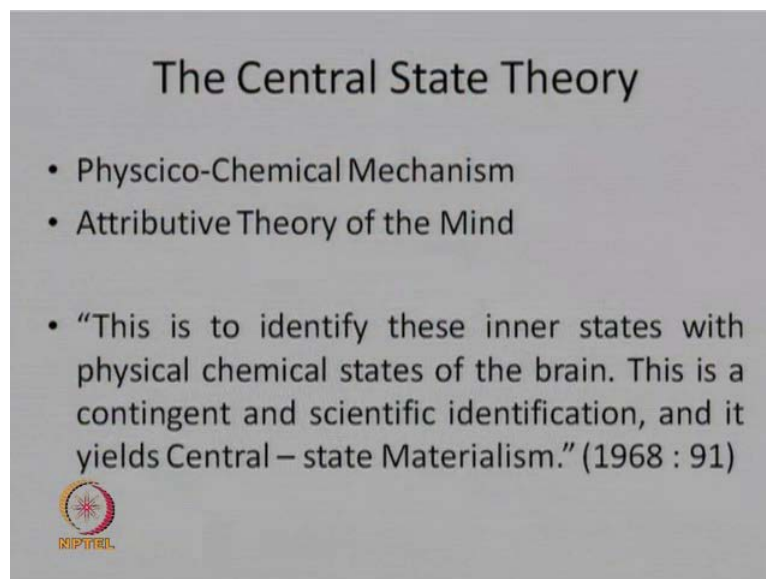
- Is Consciousness a special type of Behaviour?
- Behavioursists' thesis
- Disposition to behave in a certain way and to exhibit the mental
- Mental events are private/ internal to the individual

Now, let us go to this first statement of Armstrong, one is, his consciousness, a special type of behavior, this is one of the central questions in identity theory. As we have discussed about the behavior thesis, behavior consider mental states are dispositional states and mental states cause behaviors. So, behaviors are manifestations of brain states or what they call mental states.

Now, mental events are different from psychological or brain events, if they are different from brain events then the question is are they causally related to brain events, meaning


thereby this relationship is **it** logical relationship or a mere causal relationship. When I say mere casual relationship, then the question is, is it a confusion identity that Place and Armstrong are talking about or is it a logical identity Place and Armstrong are talking about. So, **what is** what kind of identity thesis is being proposed here when they say that mental states are caused by brain processes or consciousness is identical with brain processes. So, looking at these questions about identity we would be referring to Armstrong thesis on identity.

(Refer Slide Time: 02:38)



The Central State Theory

- Physico-Chemical Mechanism
- Attributive Theory of the Mind
- “This is to identify these inner states with physical chemical states of the brain. This is a contingent and scientific identification, and it yields Central – state Materialism.” (1968 : 91)



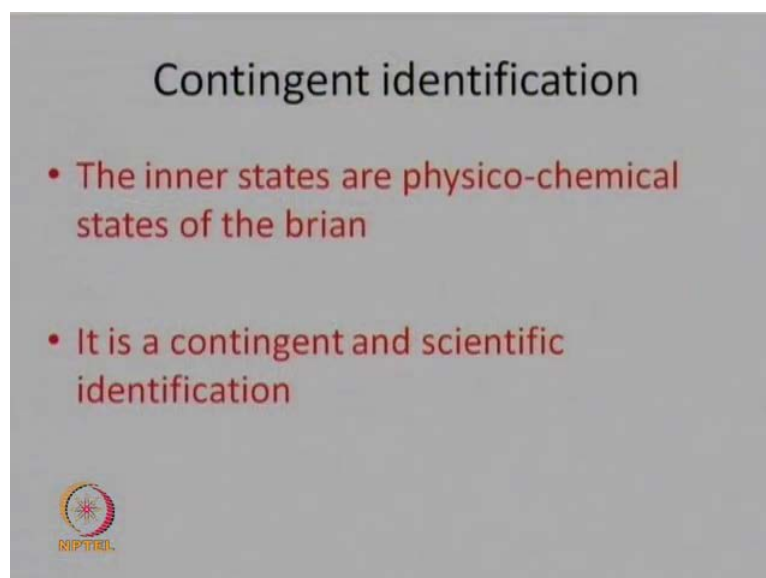
That is the central state identity theory advocated by Armstrong, talks about two main important points, one is the physical chemical mechanism and another is the attribute theory of mind. So, Armstrong considers that mind is nothing but a physical chemical mechanism, but he does not totally rule out the concept of mind.

What he does is this that he attributes some kind of quality or properties to the mind to this entire function, the physicochemical functions that are happening in the **you know** brain or entire nervous systems taken into account. So, these are the two important points in Armstrong’s central state identity theory, but look at this quotation from Armstrong. Armstrong’s this book a materialistic theory of mind published in 1968 by **(O)**, it goes like this, this is to identify this inner states with physical chemical states of the brain, this is a contingent and scientific identification and **it is** it yield central state materialism.

So, argument Armstrong thesis on central state theory talks about a inner states, what kind of the notion of inner Armstrong is proposed, is it like the cartesian theory of inner. According to Armstrong brain processes are certainly the inner **you know** events, they are not the outer events and they are not given directly to our observations. So, what is directly given to our observations is behavior, now they are trying to reject the behaviorist, thesis. According to them behaviorism is not a sound philosophical thesis to talk about human mind, what is important here is that the **the** behaviors are directly caused by certain inner events and these inner events are of course physical events. Because when he talks about the physicochemical processes in the brain or the activities in the central nervous systems, so the entire process, the bodily mechanisms which are not given to us directly to observe and then talk about its identity.

Armstrong is proposing a thesis, that these inner states are causally related to the behavior and **when they** Armstrong and its followers argue that this causal relationship is possible what is next, what is the status of mind. You know they ascribe the mental attributes to the behavior, so mind as an ontological reality is not part of Armstrong's core agenda; rather mind becomes an epic phenomenon for the identity theorist. Now, let us go into the details of this notion of identity that Armstrong is talking about.

(Refer Slide Time: 06:00)



Contingent identification

- The inner states are physico-chemical states of the brain
- It is a contingent and scientific identification

RIPTIER

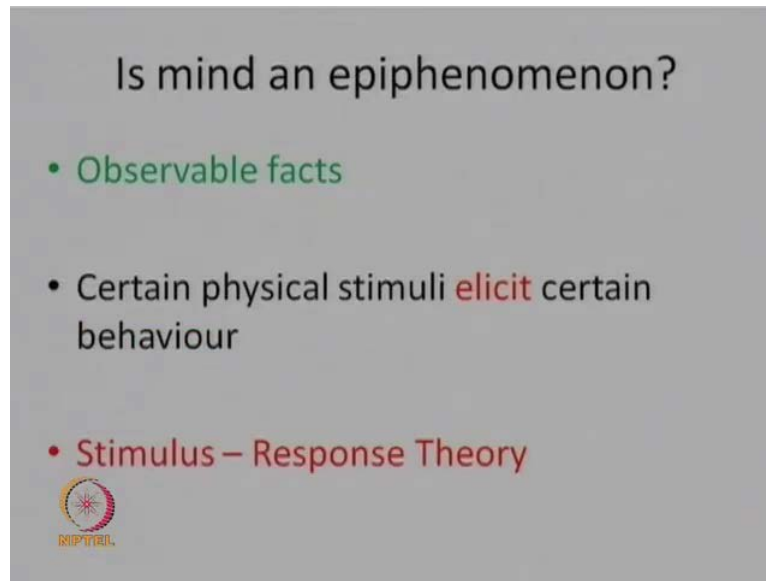
Now, as I said the causal relationship between the brain states or the central nervous system and the behavior, is a kind of a contingent relationship, because it is not a logical

relationship. When I say p and q are logically related, what I mean is that whenever I talk about q the p is presupposed and so p is the necessary and sufficient condition for q. So, **that kind of and** the actions of q would talk about the actions of p as well, so this kind of identity what I called the logical identity, thesis is not strongly **you know** advocated by a Armstrong as well as by Place. Now, what they talk about is a kind of a contingent identifications, so what they talk about it is a kind of a contingent identity, now what is a contingent identity?

Since Armstrong is talking about a scientific hypothesis, is proposing a scientific hypothesis then in all scientific hypothesis are **(O)** there not **(O)**, so we have seen in the case of decadent **you know** that the transidental theory of mind, they advocate the mind is eternally true entity. If **if** mind is **or** mental eternally true, or it **it** eternally exist, so that kind of hypothesis is been rejected by Armstrong. For Armstrong it is a kind of a contingent identity that the brain and the mind are contingently related, it is we can say that say x is a brain state and x can cause y. Now, this identity is based on some kind of evidence, now we have an evidence for x causing y, **it** this relationship **will be you know** may not hold true.


When we talk about say y is caused by k, so if we have a hypothesis here, that pain is caused by the c fiver, so whenever c fiver is stimulated, we understand that **you know** there is a pain. So, **so** c fiver simulation is causally related to the experience of pain, but it may happen that after few years the neurologist will come out with some other evidences, no, the cause of pain is not only due to the c fiver, maybe it is due to something else, let us say **you know** d fiver is causing pain. So, this kind of revision is entirely possible and scientific analysis of the notion of mind will hold on to this hypothesis. So, whenever Armstrong or Place will be talking about identity theory, it is a causal identity theory but not a logical identity theory. Mean, thereby the causal identity theory will hold on to the contingent identity that the inner states are physicochemical states of the brain and these physicochemical states are contingently related with the brain processes.

(Refer Slide Time: 09:51)



Is mind an epiphenomenon?

- Observable facts
- Certain physical stimuli elicit certain behaviour
- Stimulus – Response Theory



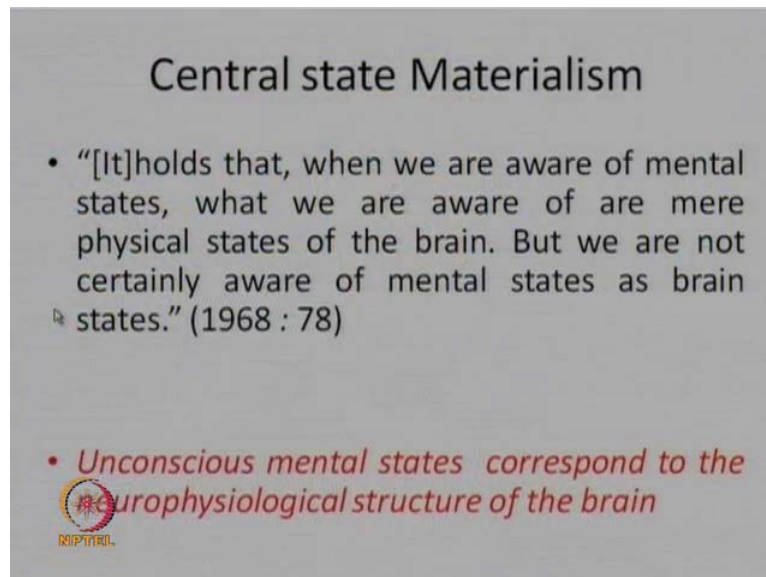
Now, the question that arises here is this is mind then an epiphenomenon, because what is the status of mind, because when I say that mental is caused by brain processor, look at the whole scenario here if we say that the mentally caused by the brain processes. Now, what are ontologically real are the brain processes, so the brain becomes the primary condition of causing the mind. So, now, the question is, is mind an epiphenomenon? Armstrong will not assert on this proposition and say yes, mind is an epiphenomenon, he does not deny entirely the notion of mind, what he asserts on this that the scientific understand of mind is based on certain observable facts. Now, since there are observable evidences shows that certain mental phenomenon is caused by brain processes, so this observable facts there is a kind of a function, there is some kind of a processes found in the neurological systems of human organism and that maybe causing **you know** the mental states or behavior.

So, therefore, observable facts are taken into account and what is to be taken into account is that there is a kind of stimulus response theory, whenever we encounter certain facts we responds to those facts in a particular way. So, that kind of a causal mechanism they will be talking about, so what is Armstrong thesis is this, the certain physical stimuli elicit certain behavior. So, this is kind of a causal chain **in** sitting is a kind of a causal mechanism that **you know** would show how brain processes are cause of our behavior.

So, that is a kind of a thesis which Armstrong would propose, Armstrong will not deny entirely that there is nothing called mind, so for him saying that mind is a pre phenomenon

probably not correct, so that will be **you know** my suggestions. Because, he talks about an attribute theory of mind, mind is attributed to these whole processes, saying that experience, imagination, etcetera are mental phenomena and they are attributed to **you know** the brain processes. Now, let us go further and see Armstrong's argument.

(Refer Slide Time: 12:43)



Central state Materialism

- “[It] holds that, when we are aware of mental states, what we are aware of are mere physical states of the brain. But we are not certainly aware of mental states as brain states.” (1968 : 78)
- *Unconscious mental states correspond to the neurophysiological structure of the brain*

NIPTTEL

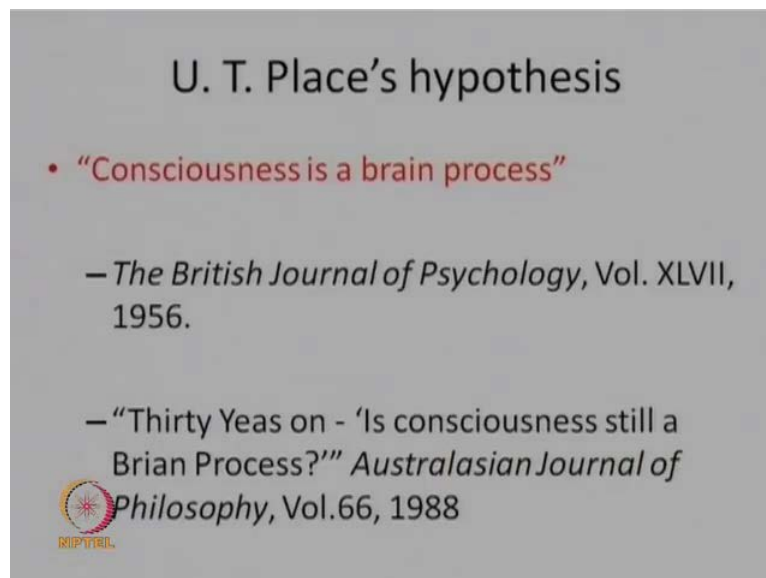
Now, the central state materialism or central state identity theory holds that when we are aware of mental states, let us say when we are experiencing mental states or thinking something, what we are aware of are mere physical states of the brain, but we are not certainly aware of mental states as brain states. So, there is a mechanism which is going on and we are not aware of this mechanism, but we are aware of the facts that we are thinking something, let us say I am thinking about my lectures. I am conscious of what I am saying or I am conscious of **you know** my students looking at me and listening to these lectures. So, these conscious experiences or awareness is what I am directly concerned with, what I can directly **you know** be conscious of, but what is important here is to examine the thesis, that is something going on behind all this experience of mind, all this awareness of mind and that is what Armstrong called an inner process.

Inner for him does not mean that this inner is a mental process inner, inner here means a kind of brain processes, which are not observable directly, which are not experienced directly, which are not known directly. So, in that sense the concept of inner has to be revised within this framework of the central state materialism. So, materialism will hold

on to the ontological thesis of a matter, for him the mind not ontologically prior to the matter, probably the mind is caused by the matter. So, that kind of thesis has to be considered when we talk about an identity theory in a typical case of identity theory for x kind of behavior, y is the cause. So, that kind of identity at a micro level is possible, so now then the question arises.

When he talks about inner processes, these inner processes are unconscious processes, we are not conscious of this fact that unconscious mental states are real, because when I say I am experiencing all of you sitting there before me and listening to my lectures, now this idea of consciousness is so self evident in the case descartes or so self evidently available to us, is not considered something is very significant in the case of Armstrong. Armstrong says this brain processes which are inner reality to all our behaviors, to all our **you know** actions is something unconscious, they are not conscious behavior. So, probably Armstrong thesis is this, the unconscious mental states correspond to the neurological structure of the brain, now this idea one has to look at, because neurological processes in the brain are entirely unconscious.

(Refer Slide Time: 16:38)




U. T. Place's hypothesis

- "Consciousness is a brain process"

— *The British Journal of Psychology*, Vol. XLVII, 1956.

— "Thirty Years on - 'Is consciousness still a Brain Process?'" *Australasian Journal of Philosophy*, Vol.66, 1988

 NIPTTEL

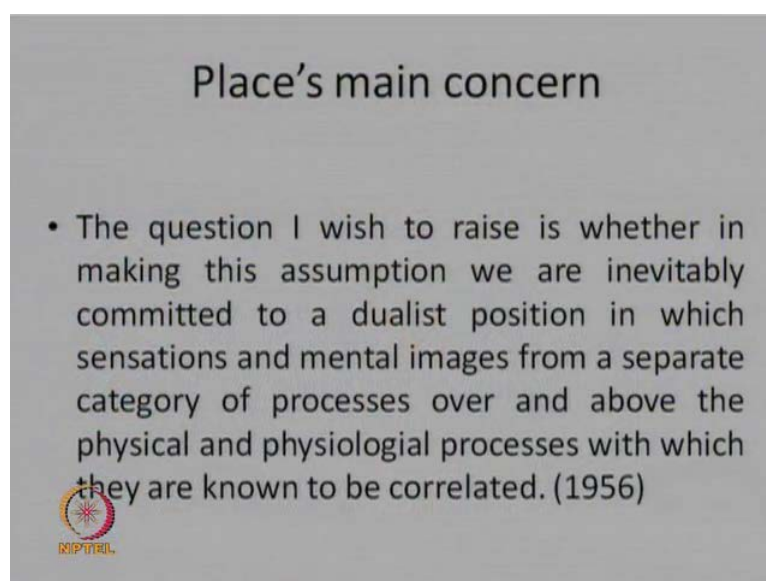
So, **and** that would give **to you know** some kind of a synthesis, I would say that Armstrong is trying to bring out when he talks about the attribute theory of mind and psychophysical mechanism is going on behind the whole process of the mental, what we call the mental or voluntary behavior. So, Armstrong is not rejecting entirely the mind, Armstrong infact needs

of week thesis on identity, I would say when I would compare him with a U T place thesis on identity. So, in that context Armstrong is drawing a synthesis between the existence of the mind and the existence of the brain process and how this two are related in the hypothesis called the central state identity theory.

Now, let us go to look at what is U T place's measure concerned. Now, U T place is all we know is advocating an hypothesis, consciousness is a brain process, now this hypothesis is one of the major get through in discourse of the philosophical of mind. U T place a famous hypothesis published in British journal of psychology in 1956 and place holds on to **you know** his hypothesis and writes another paper published in Australasian journal of philosophy in 1988. And this article corresponds to the previous one, says thirty years on his consciousness is still a brain process.


The previous article is title as his consciousness at brain process, so after thirty years unfortunately U T place passed away in 2004, U T place papers, his consciousness **a** brain process is a measure breakthrough in the discourse of philosophy of mind, because the scientific understanding of mind is based on the simple hypothesis. And U T place is trying to look at what kind of identity theory philosophers are holding, is it just a logical identity theory, does the logical identity theory presuppose certain scientific facts, I mean does it have any connection with the scientific facts.

(Refer Slide Time: 19:40)



Place's main concern

- The question I wish to raise is whether in making this assumption we are inevitably committed to a dualist position in which sensations and mental images from a separate category of processes over and above the physical and physiological processes with which they are known to be correlated. (1956)

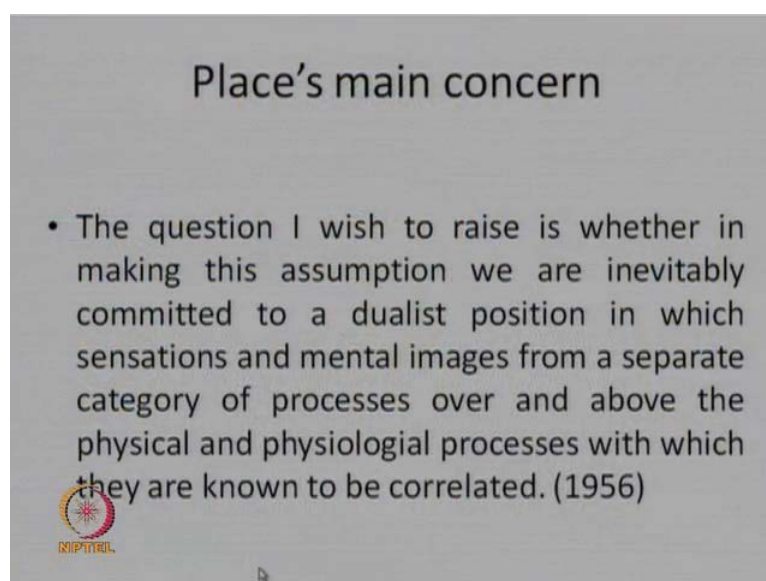
 NIPTEIL

So, that **is** plays a major concern **I would** I would say, so look at the main concern of place, I have to capture it in this quotation. He says the question I wished raised is whether in making this assumption as we assuming that brain processes cause consciousness, let us assume **that** that is true and then we says we are inheritively committed to the dualistic position. The moment you say that brains posing the mind or consciousnesses then you are committed to a dualistic notion of mind or a dualistic theory of mind.

Now, this dualistic position in which sensation and mental images from a separate categories of processes over and above the physical and the physiological processes with which they are known to be correlated. So, what is important is that movement you talk about x is causing y and y here is a mental phenomenon **and** caused by x which is a brain process, then you are already caught in the circle of dualism, the kind of dualism probably descartes initiating.


And we all know that a descartes is committing a kind of a mistake what Ryle calls a category mistakes. So, this assumption that x causing y, mind is caused by brain processes and putting them in two categories say x and y is a problematic thesis. So, we need to look at this thesis mere closely, whether this thesis is based on certain observable facts or it is a kind of a mere logical assumption that is what is placed main concern. Over and above this process the physical and the physiological processes with which they are known to be correlated.

(Refer Slide Time: 21:36)



Place's main concern

- The question I wish to raise is whether in making this assumption we are inevitably committed to a dualist position in which sensations and mental images from a separate category of processes over and above the physical and physiological processes with which they are known to be correlated. (1956)

 NIPITTEL

So, we need to correlate the mental with the physical and **and** what kind of correlation is talking about now that will be very clear when we look at the nature of the hypothesis. The nature of the hypothesis says consciousness is a process in the brain, **in** my view neither self contradictory nor self evident, so it is not self evident as descartes is proposing. So, therefore, he says it is a reasonable scientific hypothesis, meaning thereby a reasonable scientific hypothesis maybe based on certain new evidences, that if a new evidence is so asked the mentalist not caused by brain processes, then it is fine. Probably that will revise **you know** the kind of hypothesis that place and other neuroscientist or other materialistic theories of mind are talking about, that will certainly revise their hypothesis.


But so far as place thesis is concerned we need what place is for **is** this, that we need to find out the correlation and that is very important challenge for all of us. And the neuroscience is progressing today based on this hypothesis or the based on this assumption that there are certain sectors in the brain, there are certain places in the brain which are causing mental phenomena. So, that is something we need to talk about, **say** one can say hypothalamus, the central part of the brain which is causing consciousness, that is the recent thesis probably Sarl talk about.

And in fact, Sarl's biological naturalism holds onto this hope that **you know** consciousness can be explained by brain processes, we would definitely look at **you know** sarl's theory of consciousness little later in our class. But what is important here is this that this hypothesis in a way is based on certain scientific analogy, analogy are certainly important to talk about scientific proof. Analogy are certainly important to talk about scientific proof, analogies are **you know** drawn here with a reference to lightening is a motion of electric charges, like brain or consciousness is caused by brain processes. Now, this kind of hypothesis is analogous to the hypothesis that lightening is nothing but a motion of electric charges.

(Refer Slide Time: 25:13)

Main Arguments

- Mind-Brain identity is not a logical identity but an empirical theory based on scientific evidences
- Brain processes cannot be dismissed on logical grounds.
- Inner process does not entail dualism.



So, that is kind of an analogy place is trying to draw here, is a reasonable scientific hypothesis according to U T place. Now, what are the main arguments places heavy? Now, the main arguments are mind brain identity, is not a logical identity, but an empirical theory or an empirical identity based on scientific evidences. Number two brain processes cannot be dismissed on logical grounds, to say that I am aware of my experiences, my dreams, imaginations, etcetera are self evidently true and this self evidence is something very personal and private to my consciousness is ruled out.

So, we cannot just say they are logical; either we have to prove that they hold a kind of an identity with reference to the scientific **you know** evidence, so that is the hypothesis mainly talking about. So, inner process therefore does not entail dualism, so whenever the identity theory talks about the notion of the inner they do not really talk about the way the Cartesians talk about the notion inner, probably the concept inner is to be **you know it will** modified here and understood. Inner means that which is not directly observable, in that sense inner has to be taken, I mean as I have already talked about it.

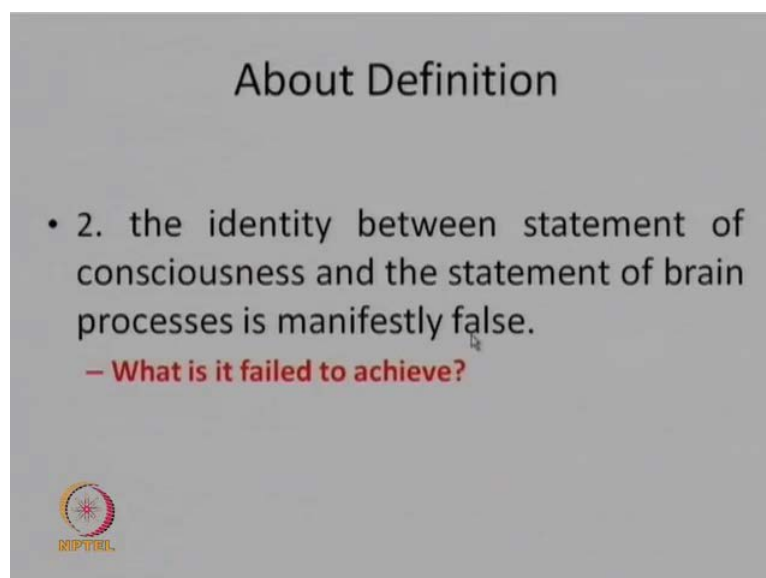
Now, we need to reflect that how place go about this hypothesis. Now, look at the definition of thesis, **thesis is** the notion of is here is something very important, now is here is **is** in the sense of definition or in the sense of composition. So, there are two sense in which we can talk about the notion of is that say consciousness is brain processes. Now, in what sense this is **is** being used, that is what we need to look at, is it used in the in the

definitional sense or **you know** something which composes it is predicate. Say for example if I say red is color, that is the example gives red is a color, here color is a predicate, predicate that defines the subject.

Whenever we say that red is a color but nothing else. If I say red is a color but nothing else, probably this I would take in a definitional sense, because that color which is a predicate here necessarily defines the subject red. So, in that sense it will be a kind of a definitional notion of predicate, because I am saying red is a color but nothing else.


If I say this then **and** go back to the hypothesis that is consciousness is a brain process, this is the hypothesis that place is drawing here, if I go to that hypothesis then I find place is using it in the sense of definition. Now, then what is been drawn here, this says that they are necessarily identical, this two say they are necessarily identical c and b are necessarily identical or they are contingently identical, because necessary identity will talk about reductions that brain is necessarily related with consciousness or in other way we will talk about reductionism. Place is very much aware of this, but in place theoretical frame work there is no reductionism though place talks about identity. Therefore, he says in a statement about sensation and mental images are reducible or analyzable in the statements about brain processes, certainly there are people who talk about this kind of thesis.

(Refer Slide Time: 29:58)



About Definition

- 2. the identity between statement of consciousness and the statement of brain processes is manifestly false.
– What is it failed to achieve?


RIPTER

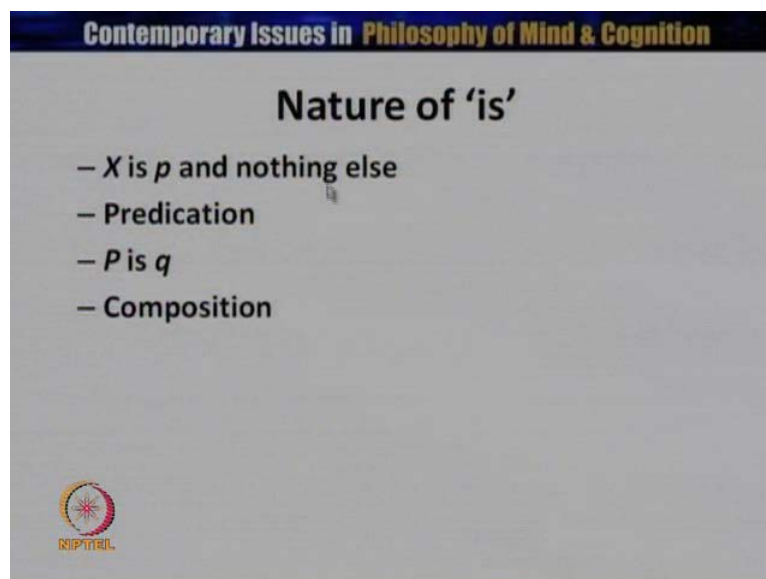
But place identity thesis does not talk about **know** this kind of reductionism, whether about definition **is** says the identity between the statement of consciousness and the statement of

brain processes is manifestly false, it is manifestly false because it has not achieved what it was suppose to achieve and therefore, it is manifestly false.

Now, what it is suppose to gain, what place hypothesis is intending to prove here is our major concern. Now, the main concern here is this, that **is** should be used in a definitional sense and is also used in a compositional sense. Now, as I mentioned about this statement red is a color, is a definitional sense here. Red is a color, color is a predicate and he says that a square is an equilateral rectangle, is another kind of a definition. A square is an equilateral rectangle; this is a kind of a definition he is trying to pose in compositional sense, now what kind of composition that he is talking about.

Now, in a compositional sense he says that her hat is bundle of straw tied together with string. Her hat is a bundle of straw tied together with string, now this here is **is** used in the sense of compositions, in the sense of composition.

(Refer Slide Time: 32:10)



Now, his table is not an old taking case, is also used in the sense of composition. So, now, locate this analysis of or the nature of is, say for example, if axis p and nothing else is used in the sense of prediction, say for example, if I say water is H 2 o, further I am trying to use is in terms of a predication or in the sense of a composition, there are two ways in which a now we can use the term is.

So, another is, if I say p is q, man is a rational or man is say bi there are two ways in **in** which **you know** each can be used. So, in the sense of composition and the sense of predication the necessary statement, when I say man is rational or water is H₂O, then **is** is used in the sense of a identity. That is water is necessarily H₂O having the properties like a two molecules of hydrogen and the one molecule of oxygen, so that necessarily defines hot water is all about.

(Refer Slide Time: 33:01)

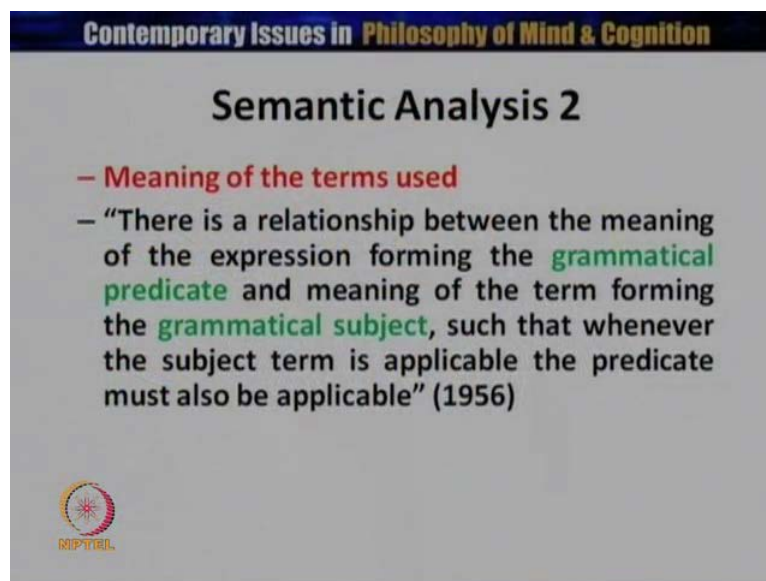
The slide features a dark blue header with the text 'Contemporary Issues in Philosophy of Mind & Cognition' in white. Below the header, the title 'Analysis - 1' is centered in a large, bold, black font. Underneath the title, there are two bullet points. The first is '– Necessary statement' in black, followed by the example '– *Square is an equilateral rectangle*' in green. The second is '– Contingent statement' in red, followed by the example '– *Her table is a old packing case*' in green. In the bottom left corner, there is a small circular logo with a red and white design and the text 'NIPTIEL' below it.

So, place argues that giving this statement, square is an equilateral rectangle and she compares with another statement, it should be n. Her table is an old packing case, now in the later case you find the second statement, here is a about **the know** giving the sense of composition, where as the first one gives us the impression of identity. If p and q, water and H₂O are the subject and predicate term then both are necessarily related, that is one thing. The necessary relation suggests that wherever there is a q, p is a present and whenever q is absent, p is also absent, so in that sense the concept of necessity is a to be defined.

So, place argues that is one is used in the case of a definition, it is used in the sense of a necessary conditions. The kind of predication which is when is been used to talk about water or to talk about consciousness shows that the necessary statement talks about some kind of an identity between the subject and the predicate.

So, in that sense place is trying to prove his a hypothesis that consciousness is brain process, so it is not a contingent statement; rather it is a necessary statement, because had it been a contingent statement, it would have been false. If some real says no consciousness is not caused by brain processes, it is caused by a some other function of the organism, so let us say computation causes a consciousness, if somebody argues in that then this could be treated as a contingent statement, not a necessary statement.


(Refer Slide time: 36:01)



Contemporary Issues in Philosophy of Mind & Cognition

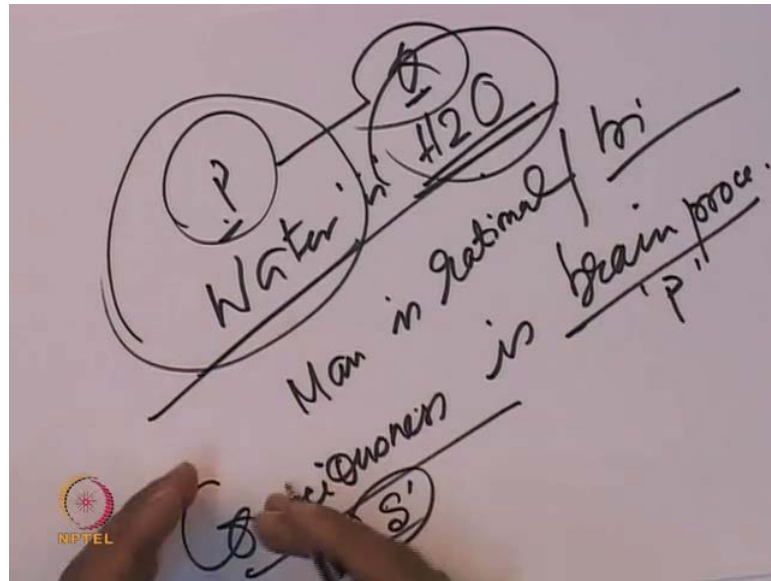
Semantic Analysis 2

- **Meaning of the terms used**
- “There is a relationship between the meaning of the expression forming the **grammatical predicate** and meaning of the term forming the **grammatical subject**, such that whenever the subject term is applicable the predicate must also be applicable” (1956)

 NIPTEIL

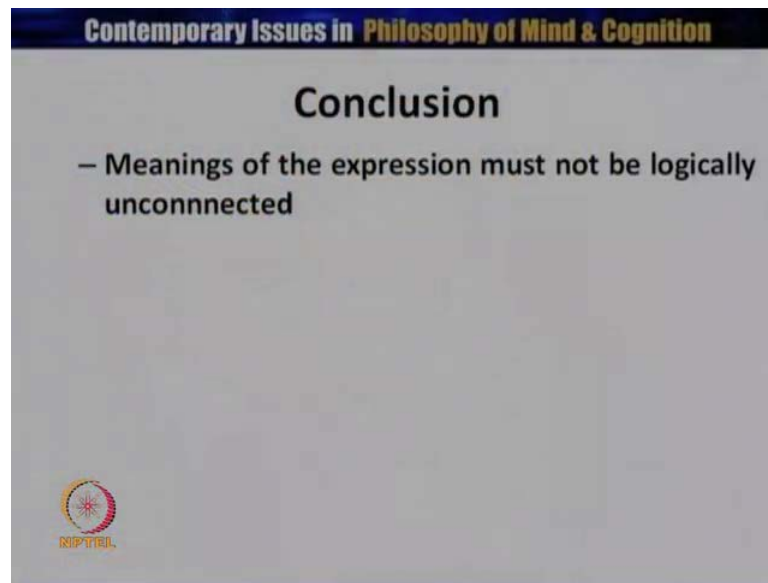
So, then we need to really define, locate in what sense place is talking about this identity or defining the necessity. Place argues and for argument is as follows, that is there is a relationship between the meaning of the expression forming the grammatical predicate and the meaning of the term forming the grammatical subject, **now** such that whenever the subject term is applicable the predicate must also be applicable. So, as I mentioned earlier that whenever I talk about the presence of q or H₂O in the case of water I also suggest that now corresponding to this predicate we have also the presence of the subject.

(Refer Slide Time: 36:33)



So, in that sense, we are talking about some kind of a grammatical subject and grammatical predicate. So, the subject predicate relationship or when we say that consciousness is a brain process, so this is what according to these kind of grammatical predicate, a scribe to the subject term say consciousness. And whenever we talk their necessary relationship we say that the grammatical subjects is available along with the grammatical predicate or whenever we talk about the grammatical predicate then the grammatical subject is a presupposed. So, in that sense the kind of meaning they generate is nothing but a kind of a necessary relationship between the subject term and the predicate term.

(Refer Slide Time: 37:42)



So, what we can conclude from this as thesis is this that the meaning of these expressions must not be logically unconnected. When **you** that consciousness and brain processes are to unconnected terms that is what place will not accept, in fact they are logically connected with each other. So, place tries to draw our attention to this fact that this hypothesis that consciousness is a brain process, projects or proves this fact that we cannot sideline the notion of brain processes when we are talking about consciousness. Whether consciousness is always **you know** there with reference to the brain process that kind of connection is a logical connection and according to place they are not logically unconnected events.

They are not logically unconnected, because they talk about **you know** ontological dependency place in her thesis, suggests that consciousness is ontologically dependent on brain processes. So, they are not two different ontologist, whether the notion of consciousness is ascribe to the brain processes. So, therefore, it is very important to talk about whether place hypothesis any kind of a logical independence, any kind of a logical independence or place hypothesis talks about ontological dependence.


(Refer Slide Time: 39:19)

Contemporary Issues in Philosophy of Mind & Cognition

If they are logically independent

– **Ontological Independence**

– “... if we lived in a world in which all tables without exception were packing cases, the concept of ‘table’ and ‘packing cases’ in our language would not have their present logically independent status.” (1956)



Now, this is the major question **are now** follows from the debate whether the continuousness is caused by brain process. Now, the place writes **I** quote, if we lived in the world in which all tables without exception were packing cases then the concept of table and packing cases in our language would not have their present logically independent status. So, place gives the kind of linguistic analysis of this case, when he talks about the subject term and predicate term relationship the linguistic analysis shows that how a term is defined within the frame work of a language or language use.

Is it the case that when we define the concept of table stating that her table is a packing case, is the packing case always used as a predicate to define the subject table that is the question which a place is referring to. How a particular term is used and what kind of meaning it generates where it is being used, so that is in a place one concern, because as we know place is arguing this theses, **you know** particularly **and** many others in philosophy of language are talking about a huge theory of meaning. The huge theory of meaning suggests that language has a meaning **all** or the meaning of a particular term could be understood with reference to its use in a particular context.

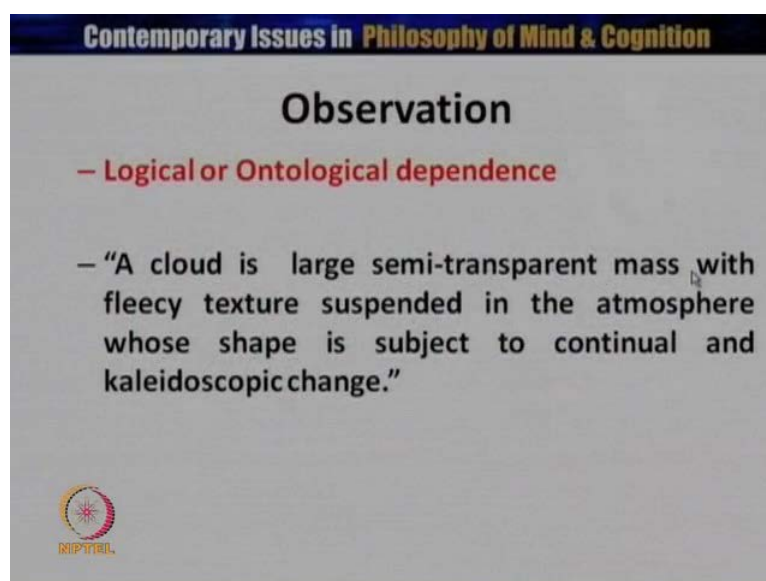
So, what is important for the later of **(O)** is this, that language use goes along with form of life, people who have read **(O)** must be aware of this fact that whenever **(O)** talks about a language use or what he calls language game, then the language game is **it is** associated with forms of life.

So, language gain and forms of life are logically connected, so when place argues that when you talk about table and table can be defined as a kind of a packing case, then is it the case that when we talk about packing case, we talk about table or when you talk about table it can necessarily suppose we will be talking about the packing case. So that kind of a logical relationship Place is trying to draw and it is argued on the background of a Huge theory of a mereing.

So, taking language into the entire discourse square identity statements can be analyzed, let us locate the notion of identity from the point of view observational facts. So, you have observational facts, like when you talk about table, we talk about packing case, similarly, in a scientific **you know** frame work, when we talk about say water is H₂O then we certainly look for an observational fact. Further in every case that we talk about water, there we find **now** two molecules of hydrogen and one molecule of oxygen, is it the case. So, a scientific case is to be proved with reference to **you know** observations.

What are the observational conditions which can says or which can suggest to us, that there is a kind of a logical dependency between brain processes and consciousness. Place gives an example and look at in this quotation of a Place. A cloud is large semi-transparent mass with fleecy texture suspended in the atmosphere whose shape is subject to continual and kaleidoscopic change.


(Refer Slide Time; 43:28)



Contemporary Issues in Philosophy of Mind & Cognition

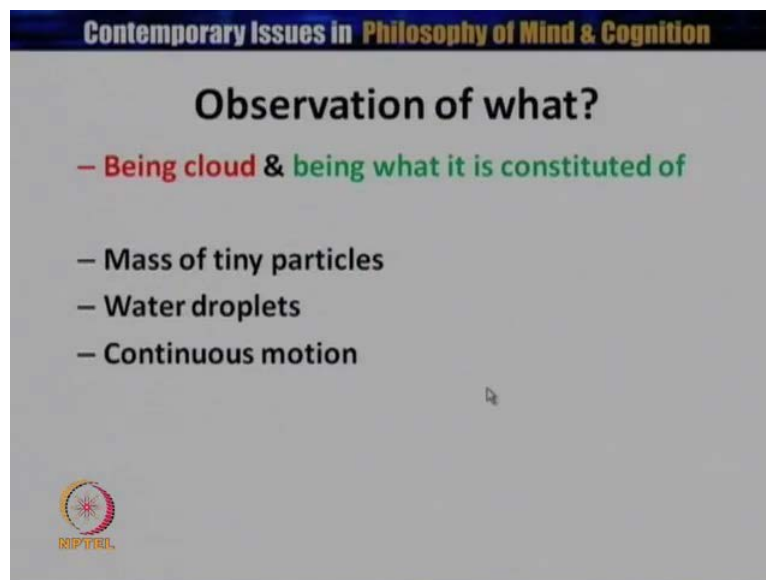
Observation

- Logical or Ontological dependence
- “A cloud is large semi-transparent mass with fleecy texture suspended in the atmosphere whose shape is subject to continual and kaleidoscopic change.”

 NIPTEIL

Whenever we imagine notion of cloud or whenever we talk about the notion of cloud then we define cloud with reference to certain observational facts that it is a kind of fleecy structure suspended in the atmosphere whose space is subject to continuous kaleidoscopic change.

(Refer Slide time; 44:03)



So, that is what Place talks about an observational facts with reference to cloud, but observation of what, which is says, then he says what do you observe? We observe mass of tiny particles, water droplets and continuous motions. So, these are the things we find now available when we talk about observations, so being cloud must corresponded to this observational facts.

If it is not corresponding to the observational facts, then probably we will suggest that this is not cloud or this is something else, this is fog or whatever. So, there are so many interpretation one can draw, so observational relationship is a important when we talk about logical dependency or logical independency. If you say that water is constituted of H_2O then we must have observational facts corresponding to these statements, if we say that the table is always **you know** about the packing case then that kind of use must be there the in our language. So, our use of on a particular **term** table must correspond to the packing case.

(Refer Slide Time: 45:33)

Contemporary Issues in Philosophy of Mind & Cognition

Observed relationship

- Invariable association
- Observation of microstructure
- Cloud means a mass of tiny particles of in suspension.

NIPTEIL

So, this is also one kind of an observational facts like we talk about **you know** the clouds, we explain the notion of cloud. So, in that sense, so this observational relationship has to be invariably associated with each other. Now, whenever we talk about causal relationship, that water, H₂O, consciousness, brain processes are table and packing case, if whenever we talk about this kind of relationships what Place called a logical relationship, then this logicals relationships are based on certain observational facts.

And as you know observational facts are talking about causal relationships, when I say H₂O causes water, water is constituted of H₂O, then this is a kind of a causal relationship that now Place will be talking about, because Place wanted to give a scientific understanding of consciousness. So, their scientific explanations not only depend on the observational facts, but how these observational facts constitute another fact that is important here.

So, in this regard we need to look at the causal relationship of the micro elements of the water or the causal relationship between consciousness or a the neural structures in the brains and the psycho chemical processes which **which** happens in the brain and how they **you know** cause consciousness or conscious experiences, sensations and after emerges. So, there is a long debate now these identity theorists are holding right from Armstrong as I mentioned. Armstrong plays to great extent, theses is a smart, who is also not trying to give **you know** explanation of sensation with reference to brain processes.


So, these entire identity theorists are depending on the causal analysis or causal explanation of consciousness. So, in that sense they talk about a kind of an invariable associations between the two. If x and y, say x and y are invariably related, whenever x is there, y is also there or whenever y is there, x is also there, so that kind of a **you now** causal relationship or a invariable relationship or a association is necessity to talk about scientific explanation of the hypothesis.

(Refer Slide Time: 48:19)

Contemporary Issues in Philosophy of Mind & Cognition

Two sets of observations

- **Case of Composition**
- **Lightning is** like motion of electric charges
- **Lightning determines** the occurrence of electric charges
- **Movement of the tide and movement of the moon**

 NIPTIL

Two sets of observations that Place is talking about, the case of a compositions where lightning is like the motion of electric charges or lightning determines the occurrence of electric charges. So, there are two things which one can think of. One, if I say H₂O determines what water is and H₂O composes water, so in that sense look at the terminology, x determines the existence of y, if I talk about x, x determines the existence of y. So, y is in fact occurring out of the x, therefore x becomes a determining factor of y, place is talking about a kind of a determining factor and the kind of an invariable co relationship and gives an example of say moon and tide, **ok.**

(Refer Slide Time: 50:03)

The slide features a dark blue header with the text 'Contemporary Issues in Philosophy of Mind & Cognition' in white. Below the header, the title 'Physiological Explanation' is centered in a large, bold, black font. Underneath the title, there are three bullet points: the first is '– How does observation/ introspective observation occur in the brain?' in black; the second is '– Chain of events' in green; and the third is '– Steps in sequence' in green. At the bottom of the slide, there is a red bullet point: '– Basically, how an after image is being projected.' in red. In the bottom left corner, there is a circular logo with a red and white design and the text 'NIPTEIL' below it.

So, whenever we talk about the raise of moon, the moon is raising, so the label of tide is also rising, so this kind of relating examples is used to talk about ((O)) how they are correlated with each other. And in the case of scientific facts we need to talk about technical observations, a set of connections we would like to determine and then probably we will be using scientific apparatus to observe certain facts. So, that kind of things place is interested to bring in when we talk about identity theory or to prove the hypothesis.

He says there is a physiological explanation, how do we talk about observation or introspective observations. Talking about sensations, talking about after images Place would go in favor of theses that there is a kind of a mental dispositional factor and that is responsible for causing you know is after images or sensations along with smart and Armstrong. So, Place example of improving the hypothesis will depend on the chain of events, so that is very important, the chain of events, the occurrence of this n of events along with when we have a particular sensation and the mind that I am you know place this example. So, whenever we have a sensation we must see what kind of events are occurring in the brain that will explain the sensation, mental sensation, Place is drawing this from Sherrington's nature of events.

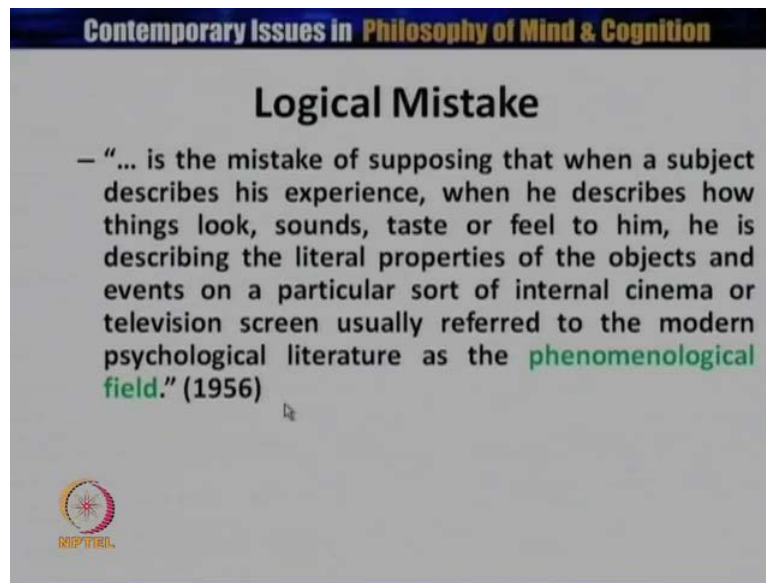
(Refer Slide Time: 51:12)

The slide features a dark blue header with the text 'Contemporary Issues in Philosophy of Mind & Cognition' in yellow. Below the header, the title 'Sherrington on Nature of Events' is displayed in bold black font. A list of items follows: '- Sir Chales Sherrington (1947) *The Integrative Action of the Nervous System*, New York: Cambridge University Press.' and two green bullet points: '- Physico-Chemical Events' and '- Psychical Events'. At the bottom left, there is a circular logo with a starburst pattern and the text 'NIPTEL' below it.

Sherrington's 1947 write this, the integrative action of nervous system, where he talks about two types of events, one is the physico-chemical events, another is the psychical events. So, Davidson in one of his papers talks about mental events, so I am **I am** sure you will take interest in a reading Davidson's cases of mental events, how mental events can be described with reference to certain physical events in the body.

So, Davidson to some extent does not eliminate the physical events, the psycho physical events or dispositional capacities and it is causal relationship with the behavior, Davidson does not pull out that, but Place is trying to show here drawing thesis from Sherrington that there are two kinds of events, one is the physicochemical events and another is the cyclical events.

(Refer Slide Time: 52:12)



But then Place is also apprehensive of a kind of a mistake, further we are talking about what you called phenomenological fallacy. The logical mistake that Place is apprehensive of one is this, that is the mistake of supposing that when a subject describes is experienced. When he describes how things look, sounds test or feel to him, is describing the little properties of the objects and events on the particular sort of internal cinema or television screen, usually refer to to the modern cyclonical literature as phenomenological field.

So, now, as I mentioned earlier that they Decart is giving a representational theory of mind, the mind is is a kind of a linear chamber where everything that is given to the mind is represented in a particular way. So, that kind of thesis Decart is talking about and whenever one is giving a description of things that is or c is experiencing, now this descriptions but how things are represented in my mind.

So, is there a mind that represents things, so Place is trying to attack the kind of representational thesis, who is a Decart arguing. The Cartesian mind which represents things is not necessarily a kind of a ontologically real, but what is ontologically real is the brain mechanism, the psycho physical mechanism of the brain and that creates gives us representations.

So, our description of our experiences are due to the brain processes, that is very going on in our brain, so Place will not talk about the kind of a representational cases which is argued by Decart and some of the followers of Decart. Let us summarize Place theses in

this way, that place along with Armstrong and Smart, those I did not discuss Smart here, but I am sure those who are reading the identity theories they would also like to read this is much. Place thus refer to Smart in her paper, Smart says sensation and brain processes that is one of Smart's paper, there also talks about how brain processes is an important factor giving or exhibiting the behavior.

So, Place tries to prove the scientific hypothesis which is a kind of a major established thesis so far and this hypothesis I think is still correct hypothesis, when Place revisits it after thirty years and writes another papers, thirty years on consciousness is a brain process. So, that is shows how Place's hypothesis is still work, if somebody wants to read identity theory one cannot eliminate Place as the hypothesis, one has to study place hypothesis very seriously in order to talk about functionalism, in order to talk about the neuro scientific or the philosophical understanding of neuroscience conciseness. With this I will conclude the discussion on identity theory; thank you.

- .
- .
- .
- .
- .