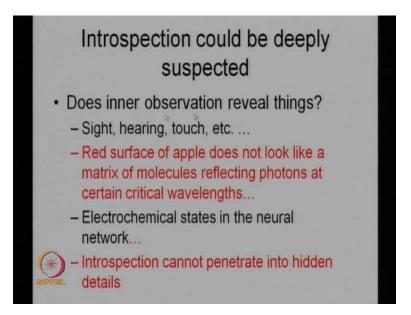
Contemporary Issues In Philosophy Of Mind and Cognition Prof. Ranjan K. Panda Prof. Raja kishore Nath Department of Humanities and Social Science Indian Institute of Technology, Bombay

Lecture No. # 10 Argument against Dualism

Today, we will be discussing about the arguments for a materialistic theory of mind, but before that, as we have been discussing about the arguments against materialism and arguing in favor of dualism. Let us see, how for these arguments sustain in philosophical discourses. These arguments as you know are are advocated from the point view of religion, from the point view of introspection as one of the essential feature of mind, from the point view of parapsychology, all these arguments are discussed in the last class.

Now today, we will be talking about the difficulties in retaining this arguments, particularly when we talk about introspection as a kind of a mechanism to look into the inner experiences of the mind or the mental life of human beings or any other creatures, we find that it is very difficult to have you know this argument of from the point of view of introspection.

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Now, the question arises is here, does inner observation reveal things, reveal the reality, because when we talk about sight hearing, touch, etcetera we say that, let us talk about the, you know suggestion of the colour of an apple; now, the red surface of apple does not look like a matrix of molecules, reflecting photons at the certain critical wavelengths, so this is what is the language of science I was talking about.

Now, materialism would talk about the existence of reality, the existence of the physical phenomena, from the point of view of the scientific understanding of the reality, the scientific understanding of the physical phenomena; now, when they would be explaining us what is colour and how does a red apple look like.

Now, if that is the question, then they would have certain explanation like this, that now there are molecules which are reflecting photons at certain critical wavelength, so there is an electrochemical states in the neural network. So, the the very sensation of having a colour will refer to what kind of neural processes are involved, what kind of chemical secretions are happening, what kind you know the electromagnetic waves are seen in the case of such an sensation of colour or etcetera. So, introspection will not really refer to the existence of such things; introspection will only talk about, how do an individual feel like having that experience, whether it is an experience of pain, whether it is an experience of colour.

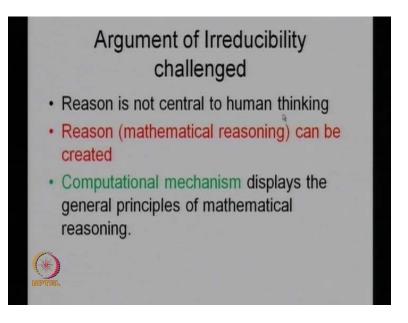
So, the language of Science and the language of Philosophy completely differ in the sense that, philosophical description does not strictly hold on to the language of Science; philosophy tries to speak at the reality which is embedded in the mental life. Say for example, that they very fact that I am very fascinated and being attracted towards this red object called apple is my personal feeling towards that object, I am expressing my personal feeling towards an object.

So, that is is in deniable, it is not that Science says wrong, it is not that, the the kind of explanation Science provides to us is completely meaningless; no philosophers would not argue from that point of view, philosophers would argue that, that let us accept Science, let us accept the propositions of Science and also not deny the fact, that such an reality exist. The experiences are very unique kind of phenomenon and that exist in reality and particularly, when we talk about the human mind and therefore, the argument of irreducibility is is again and again comes back to the discourse of philosophy of mind, whether mind can be completely explained by the scientific terms is the language of Science is sufficient enough to talk about human mind.

So, so there are some challenges, there are some challengeable questions, which are often advocated by philosophers of mind who accept that, there is something called mind and may be they are dualist, may be some of them are idealist, who would like to speak from the point of view of religion. I mean idealist would probably talk about the reality and this reality exist depending on the kind of perception that we have and that will be a kind of a philosophical thesis, which a subjective idealist would talk about, that is a dangerous thesis. In fact, because it is it is dangerous in the sense, that a subjective idealist would say that, my ideas are only real, reality that is that is dependent on my idea or constructed by my mind is only the real, so whatever I am representing is only real, so that kind of assertions are not philosophically correct.

So, philosophers would deliver into the issues which are raised by science and scientific community, which pursue the resection in this particular area called the mind or the mental.

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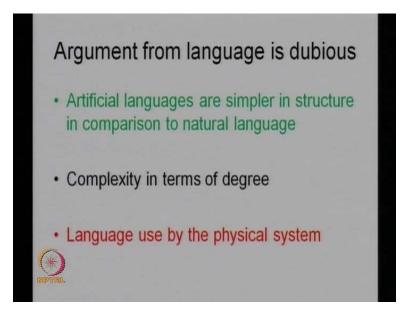
So, the argument of irreducibility would is also being challenged; it is being challenged let us say reason is not central to human thinking because, when we talk about mathematical reason, mathematical reasoning are sometimes created the very sophisticated robot will create, you know solutions to certain mathematical problems, probably which a kind of a knife mind will not able to comprehend, the problems may not be able to imagine, that you know such an things can be solved.

But computer can do that, in a very sophisticated artificially made robot can solve the problem, so that is where, we can imagine a case where mathematical reasoning is been created by human and it is created by human beings of course, but it is created and being put in in the machine and machine can operate and demonstrate that, you know machine is capable of you know solving the problem, so that is what is important, it is does not matter who is creating it, it matters how it is being solved.

Now, the very fact that, it is being solved by a particular robot in in particular way or by following a kind of a multiple ways; you know something very relevant to the philosophical community. The community who argues for the dualistic thesis of mind because, such a challenge can be very dangerous to the dualistic thesis, because reasoning is no more an a kind of essential property of human mind, reasoning is whether can be artificially made, know the very fact that reasoning is a kind of a faculty Faculty for articulating judgment for articulating decisions, articulating actions, etcetera

is is artificially or can be artificially made a something very significant to us. Now therefore, a computational mechanism displays general principle of mathematical reasoning something very significant.

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Now, let us talk about the argument from language; now language as we mentioned earlier, that it is only a human phenomenon, human beings to have language in the sense that it is a full fledge, you know sense in which human languages are are capable of analyzing meaning, there capable of communicating to the others, interpreting others actions, animals do produce sounds, animals do communicate, you know among themselves birds do make sounds, but what is important in the case of human sound making is is typical way in which humans produces sound, human beings talk, human beings articulate their thoughts, they represents their thoughts, you know this idea of representation and communication are central to human linguistic life.

Human beings live a kind of full-fledged linguistic life and from the point of view of that life, that forms of life, we are able to interpret others form of life; for example, the form of life animals, birds, insects all the behaviors are interpreted from the kind of linguistic categories, that we have because in our form of life, that is the human form of life.

So, language is an essential aspect, which can explain human behavior completely; probably yes, but what is important here is that, is language intrinsic to life, is language is essentially embedded in life, is being question by, you know the philosophers who definitely like the dualistic theory of mind. They question that, language can be artificially made like reason is artificially formed, similarly we can form language in in artificial way and as you know that computational mechanism, that we are talking about is fully developed by developing a kind of a artificial language java, photons, C plus plus all these things that you are learning are nothing but artificial language.

So, in artificial language can also be made or it can run in the machine and perform certain linguistic activities, something very significant to to us because, if language can be artificially made, then will have linguistic beings. Probably, those beings are also artificial beings, so there is nothing specific about human life, for say which will suggest that human beings are linguistic beings, rather there are other beings, who have this and therefore, they are able to you know comprehend things, they have certain extraordinary power of comprehending and solving the problems, so being is empowered or can by empowered by you know by language and this language can be artificially made, so there is nothing, therefore you know specific about language.

So, it is only a matter of degree, it is only a matter of complexity, that is involved here, so language use is is can also be there in the case of physical systems, so like robots have language, computer are are computational processes are performed by using artificial language.

Now, there is an argument which creates no problem for materialism or materialistic theory of mind or a scientific theory of mind; so, that is what is you know the non-dualist would argue about, the non-dualist who are in fact, non idealist, in fact they are realist or you can say that, they are physicalist, who say that matter only is real. So, we will have some discussion on materialism today, but what is important is to look at this argument, the arguments from the point of view of introspection, argument against this irreducible thesis, particularly with reference to reason and language.

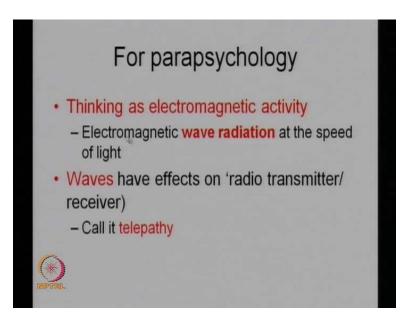
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And then will find that regarding the intrinsic qualities of sensations that, you know there is active research programs which are going on in in the scientific world, something very significant and it is not just rhetoric, there is no rhetoric possible science does not speak its language, philosophers of course speak, so the there is no rhetoric involved in it, rather what is important for the the scientific community, who are involved in in the research activities of of mind, they are in fact interested to explain the mystery about the mind, that is what is interesting to them.

Now, we would look at the notion of parapsychology; whether parapsychology is a valid theory at all for example, parapsychology would have some kind of mystery in it.

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When we talk about telepathy, we to have you know the sense of feeling that, yes my mother is remembering me or this is what he must be thinking right now and if you call him will find out yes, exactly he is thinking that. If parapsychology is a successful theory of mind, then how far it is scientific in the sense that, how far it is rational to be engaged in such kind of a discourse, some philosophers of mind would also find that, when we talk about telepathy, we will also find that, there is some kind of a radiation know electromagnetic wave radiation happening at the speed of light; now that is very you know amazing amazing evidences, that we find in the case of scientific explanations.

So, wave have effects and when we say that, somebody else is you know remembering me or thinking about me, probably his mind is acting like a receiver or a transmitter who is transmitting one mind, transmitting thought, another mind trying to capture that wavelength and you know, so in that sense, there is a kind of a connection established through this wavelength.

So, the electromagnetic wave length, that happens when we start thinking means, we are not a sleeping mind, we are actively engaged in thinking, so that is what when we think and this wavelength is being created the effect of this wavelength is also being felt and what matters is probably the intensity of thinking.

If the intensity of thinking is more, probably the wavelength is more and the wavelength is effective, so from that point of view, we cannot really deny the kind of you know wavelength, the electromagnetic wavelength that radiates, that cannot be deniable they may be somebody who is thinking, what I am thinking right now, that is that is possible that is unobservable, but what is observable is that, there is a magnetic wave being received by an individual, that is what is significant, you can call it telepathy or you can call it something else.

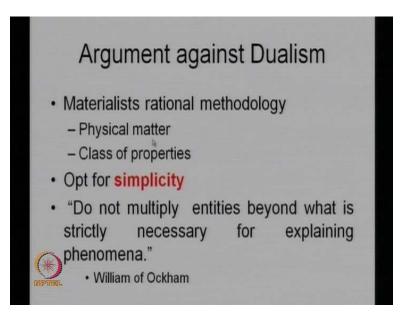
So, science would in fact go with this kind of evidences, because science would try to prove things to us that, yes this is what is happening in the mind this is what is happening in the mind, when we are contemplating on telepathy, so what we call telepathy or what a religious person will talk about telepathy or a parapsychologist will talk about telepathy. The neuroscientist would say that, know there is a electromagnetic wave radiation happening and what matters most to us is the intensity of this wave, how it is being received by the other mind, the mind is not only creating the wave.

The mind is mind also act acts as a as a receiver and that is you know a kind of a significant evidence, to explain that telepathy is not a mystery, rather telepathy if telepathy happens then, it happens in a more scientific way. So, with this few arguments we would conclude that, there are points of views which does not really strengthen the arguments that are put forward by the dualist.

The dualistic conception of mind cannot hold on to the arguments of introspection, cannot hold on to the argument of language or reason and cannot hold on to the evidences, that are given by the parapsychologist or the religious people, so the dualistic theory must come up with a new kind of language, new vocabulary and new theory, that would strongly food forth their keys.

So, let us conclude that, that mind can be explained by science more significantly and then whatever we understand from these arguments, that are given by dualist. So, the scientific notion of mind is, in fact would help us to look at what are the physical operations, what are the you know neural functions, that are happening inside the brain because, we almost sure in 21st century, that it is the brain which is which controls all our voluntary actions, it is the brain which which is responsible for our experiences, feelings, sensations, etcetera, etcetera.

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Now, if that is true, let us see how far the brain mind dichotomy is resolved, now from from this I would like to discuss on materialism, before talking about materialism I would rather try to understand the arguments against dualism and conclude, that materialist methodology is somehow very close to close to the scientific understanding of mind and what matters for the materialistic mind is the physical existence of the matter and the properties that is material bodies have.

So, and how simply this properties can be explained, so simplicity is very retained and the arguments are opt as simple as Occam's razor tells us, that in order to explain mind, we need not exhilarate the mind, probably the kind of argument which Chruchland is mentioning is something try to exhilarate the notion of mind, the kind of theorization which if these arguments are valid, the kind of theorization that is made is is more complex.

So, what is important for us and what we can achieve here is, this that we if adhere to the argument of simplicity and science; particularly aims at this notion of simplicity, that we try to clarify things; it **it** tries to clarify the more complex phenomenon and try to show us that, yes this is how things can be explained and these are with reference to some evidences, so that is what is you know very significant about the scientific understanding of mind.

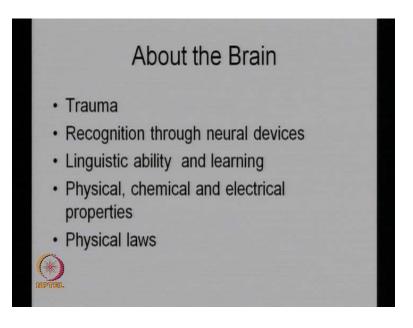
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So the explanatory devices, that are available to us is you know particularly with reference to the materialistic theory of mind, will talk about the neuroscience and that fulfills the demand of simplicity, so the existing micro structure and the casual relationship that the brain mechanism holds with the bodily organism is something very significant.

So and that is true when we talk about pain and pain behavior and the eradication of pain, so the entire brain processes, the entire neurological processes in the brain not only controlled our behavior, but also are really responsible for making voluntary actions and that is what materialistic theory of mind would talk about.

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So, the brain is the center of all these you know the materialistic theory, so what we really talk about is say in the case of a trauma or traumatic experiences or in the case of any other experiences, how do we recognize that experience that is important, now, recognition through neural devices linguistic ability and learning. Now, all these are important factors, how do we learn things, what is the mechanism of learning and how do we express those ideas, these are the things which are very important for us.

And so, physical chemical and electrical properties are necessary to formulate physical laws, it is through you know through the law, we can explain the behaviors, we can predict the behaviors of human beings.

So, laws are important in scientific world, so it is with the help of law we explain things, so, explanation of mind depends on how the laws are formulated and how these laws; let us talk about mental laws perform their activities. So, that is important, so laws are based on evidences facts and it is to those observable facts of the those properties physical, chemical and electrical properties of the brain will give us or, in fact will explain what is the notion of mind we have.

Now, with this understanding of of the notion of mind, let us go back to the kind of argument which were advocated by Gilberttri; now, I mentioned that Gilberttries is giving a kind of a behaviorist interpretation of the mind now, there are various schools of

materialism behaviorism is one of them, the question that is that is put to us is this is Ryle a behaviorist now, what is behaviorism?

Behaviorism tells us that, there is nothing called mind, rather mind can be known with the help of behaviors, is as simple as this, behaviors are observable phenomena and by observing this behaviors pattern in which a particular individual behave or a particular group behave or a particular community behaves, we can formulate certain laws and with the help of laws as I said earlier, we can explain their mind, we can predict their mind, etcetera.

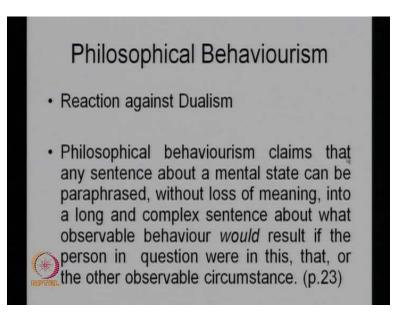
Now, when Ryle says that Descartes concept of mind is like a ghost in the machine, when Ryle says that Descartes is committing a kind of a mistake, which can be called category mistake because, mind and body are not categorically two independent entities, rather what is significant and available to our observation, is are behaviors how does an individual behave in **in** the world, how does an individual behave when he is interacting with a world.

So, behaviors are significant and behaviors if behaviors are taken into account then it will deny that that something called a hidden mind, that controls all our voluntary actions and behaviors, so Ryle is in fact, denying that, but if Ryle is a behaviorist the way probably W B Watson, B F skinner conceptualized the notion of behaviorism as as an experimental science.

Now today, let us briefly look at what is the Ryle in behaviorism all about, what are the the philosophical presuppositions behaviorist maintain, when they are look at this thesis that behaviors revile the mind, so let us look at this for a one point, which is very clear to us behaviorism deny dualism.

So, philosophical behaviorism or logical behaviorism which Ryle is advocating certainly against this idea, that mind is a substance Ryle rejects this thesis, that mind is a substance and what is important for Ryle is that, how an individual interact with a world.

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Philosophical behaviorism claims that any sentence about the mental state can be paraphrased without loss of meaning; let us understand this concept of meaning, know into a long and complex sentence about what observable behaviors would result if the person in question, where in this that or the other observable circumstances.

This is how you know Chruchland would describe the concept of philosophical behaviorism, this is with reference to Chruchland book as I mentioned title of the book is matter and consciousness published in 1984 and the revised edition came out in 1988 please refer to this text, this keeps a contemporary introduction to the philosophy of mind, the problems about the philosophy of mind and Chruchland finds that, behaviorism, philosophical behaviorism is is a problem.

Philosophical behaviorism is also argued or advocated by Putnam Hilary, Putnam in his essay the brain and the behavior, so I would like to talk about particularly, what is philosophical presuppositions what is the background and which philosophical Behaviorism or logical Behaviorism is argued.

Now, as I mentioned that, they are talking about the meaning of the concept of mind, what does mind really mean to us is this meaning is observable, does the designate to something observable is a questions and particularly this has been argued under the influence of logical positivism, so Ryle or the Ryle in who reject the dualistic thesis of mind they were under the influence of logical positivist.

Now, according to logical positivist, what is real is observable? What is meaningful? He is observable if something is meaningful if an expression is meaningful, then it must exist in reality.

So, the verifications notion of meaning as it is argued by some of the logical positivist particularly, as a Eiger and Wittgenstein to some extent has been the logical positivist, they hold on to the thesis that observable phenomenon's are only real and the kind of language which philosophers speak or the way philosophers theorize thinks, whether it is about the mind or anything else it must correspond to the reality and when they say this.

They say that, philosophical problems arise because, there is some kind of a linguistic or conceptual confusion and once this conceptual confusion are dissolved through analysis then, the problem is dissolved; so a philosophical problem arises because of the use of the language the vocabulary as Searle points out as Ryle also points out.

Descartes' Dualism is is a problematic because, the kind of vocabulary, that is used by Descartes; so all the time they are referring to language, so philosophical problems are problems of language, the kind of language that is been used to theorize mind.

So, logical positivist as you all know reject metaphysics, according to them metaphysical problems are pseudo problems, metaphysical problems are not found, idealist like Hegel would say, that absolute is real and whatever is real is rational, so the absolute can be rationally comprehended the absolute can be rationally grasped, Now, you do not have this notion of absolute there as as a fact, Hegel idealism will talk about the realization of the absolute through a know dialectical process and that is something do it experience and experience is something internal.

So, logical positivist on the other hand would talk about the the existence of reality corresponding to an external facts, because that is external can be observable and can be demonstrated. So, logical positivist that very much influenced by the methodology of science as you know science go with this idea of observation and experiment and there are many more, but these two concepts are very basic to scientific understanding, not only conceptualize or create hypothesis, but also they try to prove the hypothesis.

Now, the proof of the hypothesis lies, there in the fact, in the observation of facts, so corresponding to the hypothesis there must be certain facts in the world in the reality.

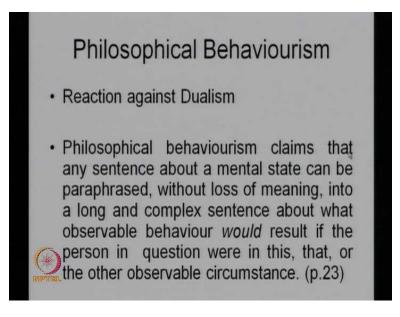
And this observable fact are to be further you know experimented, following a kind of a methodology and then we can suggest that yes or we can from laws and explain things. So, scientific suggestions are always for the explanation of particular facts and there are always about demonstration, that which can be demonstrated and observed from the third person point of view.

They are not about the internal experiences, so scientist are mostly externalist know the scientific explanations are always demonstrated, we can prove our scientific thesis by producing instances, by producing facts, which are observable and verifiable, so logical positivist were influenced by this idea of verification and observation.

Now, the verifications principle suggest, that if a statement is said or is articulated in a particular philosophical theory, then this statement must have mean corresponding to the facts, that are there in the world; so there is there is some kind of a correspondence theory of truth advocated by the logical positivist.

If it does not correspond to a fact, then it is meaningless, it is nonsensically, so it is not that there will be always a kind of a one to end correspondence rather a kind of a you know a set of sentences or meaningful if and only if they in general or if they unified must represent a fact.

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So, let us do not talk about this, but what is important for us to note here is this, that philosophical behaviorism is influenced by the kind of thesis which was advocated by logical positivist.

So, what is important for logical positivist is that, if something is philosophically correct, if something has to be philosophically correct then it must be verifiable and observable that is the propositions and the second one is that most of the philosophical problems which are metaphysical in nature, arise due to the misuse of language, so there linguistic problems and this linguistic problems can be you know can be dissolved by proper analysis of language.

And therefore, verification the theory of verification notion of meaning is one of the theories of meaning, that talks about truth; if there is a proposition then, proposition must corresponds to the fact and that is how it can establish truth.

Now, Ryle is talking about philosophical behaviorism or logical behaviorism we can say, that logical behaviorism would try to self the metaphysical thesis, that is been advocated by some of the philosophers of mind particularly, Descartes Descartes' metaphysical thesis, that is substance dualism and Ryle finds that, philosophical problems are also problems with reference to you know the language, the use of language and and that is particularly evident when we he talks about categories that there two separate categories.

Say for example, when we go to buy gloves in winter, we do not ask the sub keeper give me right hand glove, give me the left hand glove, rather we ask for give me a pair of gloves. Now, such expressions or expression proper according to Ryle, that there are there many examples Ryle gives, but I think this is something very significant, that they are together mind and body are together and what is mind is exhibited in behaviors in various forms of behaviors.

Now, how this exhibition takes place and there we can relate to behaviorist, according to Ryle this exhibitions happens probably because, there are certain mental dispositions, so dispositions manifest into behaviors, dispositions are exhibited they exhibit behaviors like.

Say for example, a glass is brittle, now the brittleness is a dispositional property of the glass once it is hit by a hard object then it breaks down, so brittleness of the glass is

manifested, whenever it encounters an kind of an external cause, so there is a kind of a causal relationship, a causal relationship which we find, when we talk about the exhibitions of behaviors, when we talk about manifestation of behaviors.

Say for example, in in the case of brittle the the hard object hitting the glass is a kind of a you know the external force of that glass encounters now, so this external force once hit you know is the reason for the manifestation of you know of breaking down the glass, so the glass that breaks down exhibits a particular kind of behavior, which is there in the glass in the form of dispositions.

So, that is what is Ryle's argument about philosophical behaviorism is that, there are mental dispositions and mental dispositions due course behaviors, so with this, let us conclude this thesis of dualism and in our next class we will be talking about the varieties of materialism including behaviorism, how experimental behaviorism started and contributed a lot to the discovery of the mind, knowledge of the mind and along with behaviorism will be also talking about the identity theory, how mental and the physical are identical in our next class, thank you.