Contemporary Issues in Philosophy of Mind and Cognition

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Lecture No. # 16

Connectionism and Folk Psychology

Now, I am going to explain about to connectionism and folk psychology. There are many philosophical problems are existing in connectionist model of mind, and secondly, whether this connectionist model of mind replacing folk psychology, and connectionism plays vital role to solve many kind of scientific and as well as our day to day problems, but when connectionism is trying to explain mind in terms of connections, units, nodes and synaptic relations, then the philosophical questions arises, then it is replaces folk psychology, then it explains folk psychology in ordinary way.

Although this connection is to model of mind is part of this is also one of the connecting model of mind which we have seen, and the connectionism is one of them also. If the modern cognitive science, these models are provided the basis for stimulating or modeling the cognitive performance. Simulation is one of the important ways of testing theories of the mind, and if a simulations performs in a manner comparative to the mind, and then, that will offers support for the memory underlying that simulations, and however, in cognitive science, we see that two models have provided a basis for most of the simulation activities.

There are two models in the simulations activities if you find in the cognitive science. On the one hand if you see, the digital computer can be used to manipulate symbols, and in so far as it becomes possible to program the symbol processing computer to execute task that seems to require intelligence. That is the symbol processing computer becomes a possible analogy of the mind. There are various cognitive science theorist have been attracted to the proposal that the mind itself is a symbol processing device.

The model of the brain on the other hand is a technique and to and physiology of the brain, and this view suggest that the brain consist of a network of simple electrical

processing units which can simulate and inhabit one another. This style of explanation of the brain in the cognitive science is generally considered as the brain style computations. Now, the question is why should there be a brain style computations and there are many connections they have replied to this questions very scientifically, and this is at the basic assumption is that, we seek explanation at the program or functional level rather than the implementation level.

Thus it is often pointed out that we can learn very little about what kind of program a particular computer may be running by looking at the electronics with which it is made. In fact, we do not care much about the details of the computer at all, but all we care about program that is running, and then if we know the program, we will know how the system will behave in any situation. It does not matter whether we use vacuum tubes or a transistor that is the essential characters of the same.

Between both the things, even if vacuum tubes or transistors, the essential characters are the same because it functions in a mechanistic way and it is true for computers with they are all essentially same, either we make them auto vacuum tubes or transistors. We invariable use computers of the same design, but when you look at essentially a different architecture and we see the architecture make good deals of differences.

It is the architecture that determines which kinds of algorithm are most easily carried out on the machine in questions and it is the architecture mechanism that determines the essential nature of the program itself, and thus it is reasonable that we should begin by asking, that we know about the architecture of the brain and how it might save the algorithm underlying the biological intelligence and human mental life.

The whole we have been understanding a architecture in the same we can understand in the biological intelligence and human mental life, and though even we algorithm process is going on in the this computational way and same way this biological intelligence and human mental life is going on, and one of the propaganda of this phases is normal, is one of the found of this says that the basic strategy of the connection approach is to take the neurons are the fundamental way of processing units. Neurons are the fundamental processing unit. That is one of the important things according to (( )), and we imagine that the computation is carried out through simple intention among such process units.

Then the essentially, the idea is that these processing elements communicate by a sending numbers along the lines and connect the processing elements. This identity becomes already provides some interesting constraints from the kinds of algorithm that might to underlie human intelligence. A question may arise here - how does the replacement of the computer metaphor the model of mind apex our thinking. (( )) as you one, one, pluggable answer say that, this change is in orientation leads us to a number of considerations that further informed and constrain our, our, models of building efforts and because neurons are remarkable relative to the components in modern computers, and he says that neurons operating the time scale of millisecond, whereas computer components operates in the time scale of nana second.

Here, there is a huge difference between, speed between brain and a computational system, and the even if computational system is more faster because computer system is a running in time scale of nano second, but in the case of human brain is functioning in the time scale of a milliseconds. This distinction is very vital distinction and this shows that computer is a superior to a human mind, and if this is superior to human mind, then consciousness can be explainable in this level also, and even if this consciousness can be quantified and this quant figures consciousness can be explainable in a mechanistic way or in a (( )) system according to (( )).

This means that human brain process that receives the order in a second or less can involve only a hundred also times steps, because the most of the computer process like perceptions, memory trivial etcetera take about a second a functions. That is we seek a explanation of this mental phenomena that do not require more than about a hundred telemetry sequence level operations. The human brain contains billions of such processing elements as the computer organizes computation with many serial steps. Similar the brain can deploy many processing elements cooperatively and in parallel to carry out its activities.

There is cooperation is there and is a parallel is there and that way it is functioning. Thus the use of brain telecommuter system of a not only a hope, that we can characterize a how brain actually carry out certain information processing task, but also offer a solution to a computational problems and that seems difficult to solve in traditional computational frame work. In the traditional system, it was a very difficult to measure how a brain is functioning and invert label consciousness either. What if the conversational model

according to (( )) that we can able to solve (( )) computational problems with the help of this model, because this model shows that there is a mechanic system is function faster than the human brain.

Therefore, we can able to solve some problem in computational model of mind. The conversational system are capable of exploiting and making (( )) style computational like artificial intelligence also and they have been trying the (( )) this artificial way and connection to operates both as a system and a process also. The connection systems are very important because they provide good solution to a number of difficult computational problems that seems to arise of an in modules of cognitions.

A connections has a process mechanism is carried out by a number of processing elements and these elements called nodes or units have a dynamic which is roughly on a analog or to simple neurons. Each node receives inputs from our some number of nodes and responds to that inputs according to a simple activation functions, and a intern executes or inhabits the other nodes to which it is connected the above analogy will be very clear.

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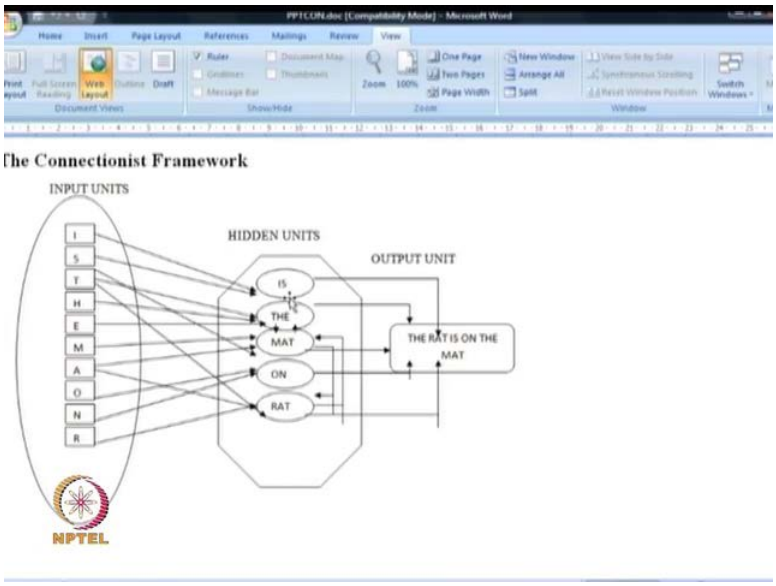

If we go through the connectionist system, let us see a figure. In this figure, we have taken a arbitrarily as a connectionist model. In any connectionist model, there are three units as input units, hidden units and output units, and here, the input units are as such i s t h e m a o n r, and the hidden units here is the mat on and a rat, and the output units is

the rat is on the mat. There may be many inputs even if many hidden units many other output units. The hidden units serve neither as a input nor as the output, but facilitate the processing of the information through the system and this model will be very clear if you go through (( )) major component of any connectionist model. There are seven components of any connectionist model. First major component is a set processing unit. Any connectionist system begins with a set of processing unit. All of these processing units connectionist system is carried out by these units.

There is no execute or other agency. See, there only relative simply units, each bring its own relative simple job. A unit is of a simply to receive inputs from its neighbor as its functions, it send outputs values to its neighbor, or the system is inherently parallel in the sense that units can carry out their computational process are the same thing whenever it is passing getting information and giving the information's. In that process also computation are, they are at the same time. There are three types of units and inputs, units, output and hidden units.

Input units receive a inputs from process external to the system under study, and the output unit send signal out of the systems and the hidden units which are check the inputs and it check also output within the system they are modeling and, but they are not visible to the outside system which is hidden inside the system, and secondly, the state of activation, and in addition to the set of units, we also need (( )) of state of at time, you know, what time we are activating particular unity and this primary specified by a vector time representing the pattern of activations over the set of processing unity, and each element of the vector stands for the element (( )) of the units. It is the pattern of activation over the set of units and that capture what the system reference at any time and it is useful to see processing in a system as the evolution through time or pattern of activities over the set of units. And thirdly output of the units.

And units interacts by transmitting signals to the nerves, and the strength of their signals and degrees to which they affect the nerves are determined by their degree of (( )). The output units also depends on the, on its activation values and how much inputs (( )) given and it depends upon the output values also, and the pattern of connectivity. There is a pattern of connectivity among the different nodes in the unity. Specifically, all these processing functions not in the arbitrary, but in the pattern of a connectivity among the processing unity and that processing unity is, there is one kind of pattern of connectivity

there and it will respond arbitrary to particular unity. It is not necessary to give you. If you put something, then it will be automatically get the exact result from the output and activation source.

We also need set of rules where the, the, inputs impinging on a particular units are combined with one another undergoing processing with the current states of units that produces a new states of activations. A sixthly, modifying a pattern of connectivity as a foundation of experience and it can develop new connections - a loss of existing connections - and modification of strength of connections that are already exist. Modification is there, and it may get new connections automatically; it may modify the changes and get strength of already that, that, modification of the strength of connection that already existing. Lastly, representations of the environment. For the development of of, any model, it is very difficult to have a clear presentation of the environment in which this model is to exist.

In connectionist model, we represent (( )) as a time making (( )) function over the space of input pattern, and that is we imagine that, at any point of time, there is a some probability. There is a some probability that any of the possible set of inputs patterns is impinging on the inputs units also. This probability depends on the history of inputs as well as the outputs of the systems, and in practice, the most models involve a smart simple characterizations of the environment.

Now, we have to see some of the philosophical implications of connectionist model of mind. There are many philosophical problem which are existing in this connectionist model of mind. In the understanding of cognitions, connectionism will necessarily have implementation of philosophy of mind because it is also explaining mind in a mechanical way, because of that, philosophers are reacting against this thesis.

There are also two areas in particular in which it is like to have impact. There are analysis of the mind has a representational system. Even if the connectionism model of mind like a representational system, analysis functional intentional representations which further distinguishes in the computational theory of mind from the representational theory of mind, and fodder concept of this representation, we will see in the next sections.

As we have seen the representational theory of mind holds the (( )) that systems have mental states by virtue of encoding representations and stating in particular lessons to them or the computational theory acts that cognitive activities consists of former operation performed on this representational system. Fodder argument against connectionism brings out the defects of the connectionism model.

He obtains that the (( )) support the compositional theory, because fodder interprets connectionism model as representational, and so, potential conforming to the representation theory of mind, and this is because connectionist routinely interpret the activation of units or groups of units as representing contents, and here, there is no distance between the connectionism model of mind and representation model of mind and use it the way of representational model of mind representing something the symbol representational system. In the same way, connectionism model mind is doing, and this is the case of inputs and output units providing cognitive interpretation of net of networks activity, and thus, the theorist must create the input as a representation of a problem and output as a representation to the answer, and the many whenever the problem arises, we give the inputs and we get the answer. The answer is like the output.

And a given unit is found to be activated by units to its certain features, and so, interpreted as representing those features and this suggest that connectionist system can indeed be understood as a representational theory of mind. Even if the connectionist networks exemplify, the representational theory of mind to their significant (( )) from more traditional example of the representational theory. Firstly, it is not clear that we can always give interpretations what units in connectionist network represent in a natural along these terms.

Secondly, the representational data are concerned are not discrete, but it is distrusted, and that is the same units and the same connects many different representational role rather than employing one representations per role. This distribution connectionist representations from those that have the perversely been designed, and thirdly, it is emphasized that the pattern of activation on the hidden units in a connectionist system are the products of the learning that the system has undergone, and the interpretation assigned to these units are not arbitrary; they are represented as symbolically, but our analysis of how the network had solved the problem it was confronting, and thus, the network is connected to sensor inputs and not supplied inputs by a modular machinery.

The intentional two of these representation is genuine not nearly a product of these theorist interpretations. Therefore, it is like a representational model of mind according to jerry product

Now, we have to see either this connectionist model mind contributes to the replacement of folk psychology. Folk psychology generally we mean the ordinary people believe about desire about the concept mental things, about mental activities of mind. That is why it is a folk and it is not a scientific; it is not a classic way of explaining mind, but it is a folk of explaining mind the folk psychology explaining that whether this connectionist model replacing folk psychology.

Even if, if you see it is replacing the folk psychology, because we know that in many ways cognitive science is originated from philosophy, and the importance of connectionist into philosophy, emergence first with the respect to the question why the folk psychology remains (( )) or must be replaced. If it is replaced, then the reliance on the propositions and (( )) of knowledge in other areas of philosophy would be at risk, because even if we impressing folk physiology, it is also replacing phenomenal mind also and (( )) also, because connectionism explain mind in terms of mechanical process and it leaves out the mentality of the human mind, and this theory suggest that there is no mental quality such as belief intension etcetera the way the ordinary, we will think about the human mind.

If (( )) provide a correct account of mental processing, if it did not turn out to implement symbol (( )) systems, when the accounts of mental life as actually involving the manipulation of propositions would appear to be (( )) and that is the mental states involves propositions. We will not figure in the genesis of behavior, and here, I would like one of the important point which has been a raised William church land that eliminatory moralistic says that even if connectionist model of mind, there is nothing called mind (( )).

Eliminate materialism by maintaining that if a theory fails to reduce our best scientific theories. At low level, it must dismiss as pulse and eliminate mentalist says that we should eliminate concept mind in the, when we are explaining brain or any other scientific. That is nothing called mind. They are eliminate completely mind is not there, but then, they contain that the reduction of (( )) in the case of folk psychology is because

there is nothing in the a head with which to identify the propositions. It deposits this conclusion enters the, the, further proposition; it deposits this conclusion enters the further conclusion that folk psychology. If (( )) even if not only connectionist model mind says that folk psychology is not there, we can replace the folk psychology. In the same way, eliminate materialism also says that.

In making this inference according to philosopher many philosopher, it is in making this inference that they assume that folk psychology theory is about process occur inside people's mind. Now, we have to examine the question whether connectionist contribute to the replacement of folk psychology. As we know, folk psychology refers to a people attributions proportional attributes to other people and you just do this predict and explain in their behavior.

And these attributions are made to whole persons, that is, folk psychology does not itself for an account of the finer gained internal operations. That may produce propositional attitudes. If we attribute to a person a particular belief, that itself need not be a descriptive internal state. That is the state inside the person and that enable the person to have a belief with will have a quite depend character, and they applied the above point to the case of cognitions because and the activities inside the head and may make it possible for a person to have a beliefs and desires. What it does not assume that they have internal states, and correspond to these proportion attitudes, it may be that the case that the internal activities are best described in the connectionist approach.

However, if you see, it does not show that folk psychology is false, because if you see, but if it is false, it will be show because it does not give correct characterization of the cognate state of persons and must. Therefore, we replaced by a better theory at the same level. I would like to argue that the cognition model of mind is unable to repute folk psychology because the connection is to explains mind in terms of syntactic, and thereby, neglect the semantics and which is very important for understanding the human mind, and this is mental content which represent the world, and that is to say that there is a central agency of the eye to which the mental activity is ascribed.

This was that human mind as, as, proportion attitudes about the world, and there is a regular relationship between human mind and the world. As David Chalmers point out who, which are the mental such states such as belief, doubt etcetera of an proportional

attitudes or attitude to the proportion concerning the world. It is not even if it existing, it may not existing, but we anything whatever we do, we do about the activity about the world. (( )) about the world, we also part of the world. Therefore, there is a constant relationship between mind and world, and if there is a constant relationship between mind and world, it is very difficult to replace the folk psychology. This is one of the important point for folk psychology to argue against connectionist a model of mind.

For example, when I believe that John will tour India, I endorse a certain proposition concerning John. When I hold that john will tour India, I have different attitudes at the same propositions that John will tour India, and here, the central feature of these mental state is there semantic aspect our intentionality. That is a belief has a semantic content. Content of many belief sited. Sited is something like propositions that John will tour India. This semantic or intentionality aspect has the feature of subjectivity and (( )), and the subjectivity of the consciousness is an essential feature of mental states and which can prove that the analyze of mental states is an irreducible fact of (( )) anthology, whereas in the case of connectionist model of mind, there is no subjective experience and and it gives the explanation of mind in third person prospective.