

Reprint from

JOURNAL OF
INDIAN COUNCIL OF PHILOSOPHICAL RESEARCH

Volume XXIII Number 2

April - June 2006

Editor DAYA KRISHNA

Associate Editor R. C. PRADHAN

Emergence of Consciousness Shows the Hardness of the Hard Problem of Consciousness

RAJAKISHORE NATH

Department of Humanities and Social Sciences, Indian Institute of Technology Bombay, Powai, Mumbai 400076, India
E-mail: nath@his.iitb.ac.in

ABSTRACT

Emergentism is a non-computational and non-material theory of the mind, because this theory says that mind or consciousness emerges from material objects, but it will not be reduced to that matter. That is to say that the higher levels of quality emerge from a lower level of existence. It emerges therefrom, and does not belong to that level, but constitutes its possessor a new order of existence with its special laws of behaviour. Thus, emergentism is an anti-reductionists' theory of the mind and has established the hardness of the problem of consciousness. The physicalistic theory of the mind in all its hues faces the question as to how we can account for the qualitative content of our consciousness. It cannot ultimately tell us how the subjective experience is possible and how consciousness can be real in the universe. The physicalistic view does not have any convincing answer to the question: how qualia are a necessary feature of consciousness?

I

Emergentism as a theory of the mind is compatible with the non-computational theory of the mind. According to emergentism, the higher-level quality emerges from the lower level of existence and has its roots therein, but it emerges therefrom, and it does not belong to that level, but gives rise to a new order of existence with special laws. Whereas Samuel Alexander says, 'the higher-level of quality emerges from the lower level of existence and have its roots therein, but it emerges therefrom, and it does not belong to that

lower level, but constitutes its possessor a new order of existence with its special laws of behaviour. The existence of emergent qualities thus described is something to be noted, as some would say, under the compulsion of brute empirical fact, or, as I should prefer to say in less harsh terms, to be accepted with the "natural piety" of the investigator. It admits no explanation'.¹ Here, emergence refers to the fact that in the course of evolution new things and events occur, with unexpected and unpredictable properties. Things and events are new in the sense in which a great work of art may be described as new. Every genuine emergence introduces novelty into the world. To say that an emergent characteristic is novel means that firstly, it is not simply a rearrangement of pre-existing elements, although such a rearrangement may be one of its determining conditions. Secondly, the characteristic is qualitatively—not just quantitatively—unlike anything that existed before in history. Thirdly, it is unpredictable not only on the basis of knowledge available prior to its emergence but also on the basis of an ideally complete knowledge of the state prior to its emergence. These points permit a distinction to be made between what is new in the sense of being a fresh combination of old factors and what is novel in the sense of being qualitatively unique and unpredictable.

II

In this article, we will find out how consciousness emerges from material properties, and how the emergent property of consciousness cannot be explained in a functional or computational way. Some philosophers argue that consciousness might be an emergent property, in the sense that it is still compatible with materialism. It is also often held that emergent properties are unpredictable from low-level properties. However, it can be argued that these properties are new in an ontological sense. What is interesting about these properties is that they are not obvious consequences of the low-level properties. But they are still causally supervenient on low-level facts.

Following the above argument, we can put forth the theory that the phenomenon of consciousness could rise only in the presence of some non-computational physical processes taking place in the

brain. As we know, living human brains are ultimately composed of the same material satisfying the same physical laws as are the inanimate objects of the universe.² There is the Cartesian view that consciousness arises only in humans, and that animals are inanimate automata; a view which is clearly pre-evolutionary. And we have reason to accept the view that there are lower and higher states of consciousness. Moreover, the most reasonable view seems to be that consciousness is an emergent property of animals arising under the pressure of natural selection. If this is so, then the question is: how does consciousness arise from antecedent conditions in the physical universe? This question still remains unanswered.

The observation of the behaviour of the amoeba created the strong impression that it is conscious. We can find symptoms of activity and initiative in its behaviour. Activity and behaviour is something different from what happens in the neurons. The human brain is estimated to have ten thousand million neurons, and there are also thousands of synaptic relations among neurons. But, the qualities which exist in consciousness are not found in the neuronal relations. There is a new emergent entity in consciousness which did not exist in the neurons, because the emergent properties of consciousness are ontologically new. The problem of emergence in this context starts with 'life' and it should be remembered that the 'brain' is not just a piece of inanimate matter, but a part of the 'living' body. As Daya Krishna remarks, 'it is not even clear whether those who want to deny the "reality" of consciousness want to deny the reality of "life" also. The "body" they talk about is a "living body"; the "brain" they are fond of is the brain that is "alive". Take "life" away and everything "dies", "ceases", at least as we "live" it and "feel" and "know" it.'³ Here, Daya Krishna is trying to identify 'life' with 'consciousnesses'. Here, like consciousness, life also emerges from the human body and identifies itself (life) with consciousness. In fact, the problem of emergence of 'life' is a far wider one but here we are concerned with human 'life' only.

Now the question is: why is it that the phenomenon of consciousness appears to occur, as far as we know, only in 'living' beings, although we should not rule out the possibility that consciousness

might also be present in other appropriate physical systems? The second question is: how could it be that such a seemingly non-computational behaviour presumed to be inherent in the actions of all material things has so far entirely escaped the notice of physicists? The first question is related with the subtle and complex organization of the brain, but that alone could not provide a sufficient explanation. Penrose clearly writes, 'I am contending that the faculty of human understanding lies beyond any computational scheme what ever. If it is microtubules that control the activity of the brain, then there must be something within the action of microtubules that is different from mere computation.'⁴ Here, Penrose says that this inanimate matter comprises microtubules that control the activity of the brain because there is life in it (brain). The action of microtubules is different from mere computation. He points out that such actions are non-computational actions wherein 'life' is related to consciousness.

The above statement leads to the question: is there any evidence that the phenomenon of consciousness is related to the action of microtubules in particular? It must also be the case that the detailed neural organization of the brain is fundamentally involved in governing what form the consciousness must take. For Penrose, if that organization were not important, then our livers would evoke as much consciousness as do our brains. He puts it thus, 'What the preceding arguments strongly suggest is that it is not just the neural organization of our brains that is important. The cytoskeletal underpinning of those very neurons seems to be essential for consciousness to be present.'⁵ But it's not a cytoskeleton as such that is relevant, but some essential physical action that biology has so cleverly contrived to incorporate into the activity of its microtubules. Moreover, it may be pointed out that in our brain there is an enormous organization, and since consciousness appears to be a very global feature of our thinking, it seems that we must look to some kind of coherence on a much larger level than that of single microtubules or even single cytoskeletons. And there is some kind of useful non-computable action involved, which Penrose takes to be an essential part of consciousness. Secondly, we must expect that vestiges of such non-computability should also be present, at some indiscernible level, in inanimate matter. But as yet, the phys-

ics of ordinary matter seems to allow no room for such non-computable behaviour.

III

Jaegwon Kim, in his article on *Supervenience*, argued that there is a striking similarity between emergence and supervenience. According to Kim, 'higher-level properties notably consciousness and other mental properties, emerge when, and only when, an appropriate set of lower-level (basal conditions) are present, and this means that the occurrence of the higher properties is determined by, and dependent on, the instantiation of appropriate lower-level properties and relations. In spite of this, emergent properties were held to be "genuinely novel" characteristically irreducible to the lower level processes from which they emerge.'⁶ Then, the concept of emergence combines the three components of supervenience delineated above, namely, property covariance, dependence, and non-reducibility. Thus, emergentism can be regarded as the first systematic formulation of non-reductive physicalism.

This thesis makes the mental life supervenient on its physical background. That is to say, according to this thesis, the mental states are not reducible to but are supervenient on the physical states in such a way that whatever changes take place in the physical states must make a difference to the mental states as well. No two things could differ in a mental respect unless they differed in some physical respect, i.e., imperceptibility with respect to physical properties entails indiscernibility with respect to mental properties. That is the core idea of mind-body supervenience.

Thus, supervenience understood in the strong sense makes room for a nomological dependence of the mental on the physical in such a way that the physical states are necessarily responsible for the mental states. As Kim points out, one must notice that the mental is dependent on the physical but not vice versa, because the mental states are a direct consequence of the physical states. The mental states themselves do not determine the physical states. In that sense, the mental states remain nomologically dependent on the physical universe according to thesis of strong supervenience.

Kim, in his article on *The Non-Reductionist's Troubles with Mental Causation*, mentions that the non-reductive physicalism consists of the following theses:

- (i) All concrete particulars are physical.
- (ii) Mental properties are not reducible to physical properties.
- (iii) All mental properties are physically realized, i.e., whenever an organism, or system, instances a mental property M, there is a physical property P such that P realizes M in organisms of its kind.
- (iv) Mental properties are real properties of objects and events; they are not merely useful aids in making predications or fictitious manners of speech.⁷

Therefore, we find that these four basic tenets bring non-reductive physicalism very close to 'emergentism'. In fact, non-reductive physicalism of this variety is best viewed as a form of emergentism. Emergentists in general accepted the purely materialist ontology of concrete physical objects and events. For example, Kim, following Samuel Alexander, one of the principal theoreticians of emergence school, argues that there are mental events over and above neural processes. Alexander says, 'We thus become aware, partly by experience, partly by reflection, that process with the distinctive quality of mind or consciousness is in the same place and time with a neural process, that is, with a highly differentiated and complex process of our living body. We are forced, therefore, to go beyond the mere correlation of the mental with these neural processes and to identify them. There is but one process which, being of a specific complexity, has the quality of consciousness . . . It has then to be accepted as an empirical fact that a neural process of a certain level of development processes the quality of consciousness and is thereby mental processes; and, alternatively, a mental process is also a vital one of a certain order.'⁸

However, the emergentist doctrine that emergent properties are irreducible to the physical conditions out of which they emerge is familiar; this irreducibility claim is constitutive of the emergentists' metaphysical worldview. Although the emergentists' idea of reduction or reductive explanation diverges from the model of reduction implicit in current anti-reductionists' arguments, the philosophical significance of the denial of reducibility between two property levels is the same. The higher-level properties, being irreducible, are genuinely new addition to ontology of the world. For example,

Samuel Alexander says: 'Out of certain physiological conditions nature has framed a new quality mind, which is therefore not itself physiological though it lives and moves and has its being in physiological conditions. Hence it is that there can be and is an independent science of psychology... No physiological constellation explains to us why it should be mind.'⁹

The strong supervenience thesis does not bridge the gap between the mental and the physical because it fails to account for how the mental states with their qualitative content arise at all in a material environment. The gap between the physical and mental remains wide because it is not known how the mental world can be explained. Now the question is: Is it not possible that the mental life not be there even if the physical universe exists perfectly? That is to say, there are possible worlds in which all the physical states of the present universe are there but there is no conscious state at all. For example, robots behave like human beings but lack consciousness. The behaviour itself is not consciousness. And if consciousness is the same in all organisms, like material things, then there will be no qualitative difference between the human and non-human. Therefore, we cannot prove that consciousness is supervenient on the physical world.

John R. Searle¹⁰ has offered an example, which will make the above thesis more legitimate. Suppose, we have a system S, and the elements of system are A, B, C,.... S might be a stone and the elements might be molecules. There will be features of S that are not, or not necessarily features of A, B, C... But there are some features which are 'causally emergent' system features. Solidity, liquidity and transparency are examples of causally emergent system features. In this connection, we should remind ourselves that 'life' is an 'emergent' property and if there were no 'life', there would be no consciousness either.¹¹ For example as we know water is the combination of two molecules parts of hydrogen and one postman molecule of oxygen. But there are qualitative differences between water on the one hand, and the hydrogen and oxygen on the other. The qualities which we find in the water, will not be found in the oxygen and hydrogen. In the same way, there is a difference between consciousness and matter because there is a qualitative difference between the two. The qualities which emerge from consciousness

will not make it possible to explain in the mechanical/functional way, but it needs a separate explanation, and its explanation is non-reductive explanation, that is, self-explanation.

The above definition shows that consciousness is a causally emergent property of systems. It is an emergent feature of creation of systems of neurons in the same way that solidity and liquidity are emergent features of the system of molecules. Thus, the existence of consciousness can be explained by the causal interactions between elements of the brain at the micro level, but consciousness itself cannot be deduced or calculated from the sheer physical structure of the neurons without some additional account of the causal relations between them.

Now the question is: Why is consciousness an irreducible feature of physical reality? There is a standard argument to show that consciousness is not reducible in the way that material qualities are. For example, I am now in a certain conscious state such as pain. Now the question is: What fact in the world corresponds to my statement, 'I am now in pain'? Here is the fact that I have now certain unpleasant conscious sensations, and I am experiencing these sensations from my experience. It is these sensations that are constitutive of my present pain. But the pain is also caused by certain underlying neurophysiologic processes consisting in a large part of patterns of neuron firing in my brain. If we reduce the first-person sensation of pain to the third-person pattern of neuron firing, then we try to say that the pain is really 'nothing but' the patterns of neuron firings.¹² If this is so, then we are leaving aside the essential features of pain. No description of the third-person type would convey the first-person character of pain because the first-person features are different from the third-person features. Nagel states this point by contrasting the objectivity of the third-person features with the what-it-is-like features of the subjective states of consciousness. As Nagel points out, 'Conscious experience is a widespread phenomenon. It occurs at many levels of animal life, though we cannot be sure of its presence in the simpler organisms, and it is very difficult to say in general what provides evidence of it... no matter how the form may vary, the fact that an organism has conscious experience *at all* means, basically, that there is something it is like to *be* that organism ... But fundamentally an organism

has conscious mental states if and only if there is something it is like to *be* that organism—something it is like *for* the organism.'¹³ Thus, I know that I am in pain is a different sort of knowledge than my knowledge of you being in pain.

The feeling of pain indicates that there is a close relation between consciousness and self-consciousness. This is due to the emergence of self-consciousness out of consciousness and, thus, making it radically different from what is it, if it is at all human levels. But Daya Krishna¹⁴ remarks that the development of robotics denies the reality of consciousness because of this 'self-consciousness' knowledge have 'self-determination' and deny the existence of mind or consciousness. This 'self-consciousness' has forgotten its dimension of 'knowing', 'feeling', and 'willing', the last resulting in the transformations through technology that has obsessed the modern mind to such an extent that it has gone to the extent of denying its own reality and considering the 'matter' alone as 'real'. But yet matter, though being resistant, is flexible, agreeable to change, which consciousness does not seem to be in the same sense. The denial of 'I-consciousness' is an inevitable accompaniment of self-consciousness. Thus, Daya Krishna remarks, "The 'real' causal role of consciousness, however, becomes clear when self-consciousness comes into its own and discovers that it can directly affect consciousness, and indirectly everything else through imaging, intending, thinking, attending, concentrating, reasoning and the other myriad activities which man has encountered in himself and developed through a long process...."¹⁵

IV

Therefore, from the above exploration, it follows that once consciousness emerges from physical properties, it will never be reduced to it. This shows that emergentism cannot support functionalism or computationalism, because a functionalist explains consciousness or mind in the reductive way, whereas an emergentist explains consciousness in a non-reductive way. Consciousness makes the mind-body problem really intractable. The reductionist shows that the mind-body problem is not a real problem. For them, there is no explanatory gap between mind and body. We have to find out why these arguments do not help us to understand the relation

between mind and body. Without consciousness the mind-body problem would be less interesting, but with consciousness it seems hopeless.

The tough problem of consciousness is that of experience, especially for a first-person character which cannot be explained within a scientific framework. Cognitive science can explain a system's functions in terms of its internal mechanism. But it is not possible to explain what it is to have subjective experiences, because it is not a problem about the performance of functions. As Nagel argues, 'Conscious experience is wide spread phenomenon ... fundamentally an organism has conscious mental states if and only if there is something that it is like to be that organism—something it is like for the organism.'¹⁶ In recent times, all sorts of mental phenomena have yielded to scientific explanation, but consciousness has stubbornly resisted this explanation. Many philosophers and scientists have tried to explain it, but the explanations always seem to fall short of the target. Now the question is: Why is it so difficult to explain? According to Chalmers, cognitive science has not explained why there is conscious experience at all. When we think and perceive, there is a spate of information processing, but there are also subjective individual aspects of consciousness, which go beyond the information processing.

Chalmers writes, 'When it comes to conscious experience, this sort of explanation fails. What makes this problem hard and almost unique is that it goes beyond problems about the performance of functions. To see this, not even when we have explained the performance of all the cognitive and behavioural functions in the vicinity of experience—perceptual discrimination, categorization, internal access, verbal report—there may still remain a further question: Why is the performance of these functions accompanied by experience?'¹⁷ According to him, even if all the functions of a system are well articulated, there is further question as to why there is any experience at all accompanying their function. Cognitive science fails to explain why there is any experience at all, even though it explains all the brain functions.

According to Chalmers, the hard problem of consciousness consists in the 'why' questions regarding consciousness. But the questions remain: Why is the 'hard' problem so hard? And why are the easy

problems so easy? The easy problems are easy because they concern the explanation of cognitive abilities and functions. To explain a cognitive function, we need a mechanism that can perform the function. The cognitive sciences offer this type of explanation and so are well suited to the easy problem of consciousness. On the other hand, the 'hard' problem is 'hard', because it is not a problem about the performance of functions. The problem persists even when the performance of all the relevant functions are explained. Chalmers says, 'I suggest that a theory of consciousness should take experience as fundamental. We know that a theory of consciousness requires the addition of something fundamental to our ontology, as everything in physical theory is compatible with the absence of consciousness. We might add some entirely new non-physical feature; from which experience can be derived, but it is 'hard' to see what such a feature would be like. More likely, we will take experience itself as a fundamental feature of the world, alongside mass, charge, and space-time. If we take experience as fundamental, then we can go about the business of constructing a theory of experience.'¹⁸

The reductionists have not solved the 'hard' problem of consciousness because, as we have seen, they have explained consciousness only in terms of the 'easy' problem of consciousness. Easy problems are all concerned with how a cognitive or behavioural function is performed. These are questions about how the brain carries out the cognitive task, that is, how it discriminates stimuli, integrates information, and so on, whereas, the hard problem of consciousness goes beyond the problems about how functions are performed. If a scientific view of the mind tries to give a definite definition of consciousness then it leaves out the explanatory gap, that is, there is no explanatory gap between mind and body. Because there is no distinction between mind and body. The mind can be explained in terms of body, and there is nothing called the mind, since the mind itself is a part of the body. If this is so, then it leaves out subjective experience, and opts for the third-person perspective of consciousness.

Consciousness makes the mind-body problem really intractable. The reductionists deny that there is a mind-body problem at all. For them, there is no explanatory gap between mind and body.

Again, because there is no distinction between mind and body, the mind can be explained in terms of body, and there is nothing called the mind, since the mind itself is a part of the body. Therefore, for them, the mind is reductively explainable in terms of the body. On the other hand, many philosophers hold that mental states are not reducible to any physical state(s). That is, the mental states are not reductively explainable. Chalmers argues that no reductive explanation of consciousness can succeed, because there is subjective quality of experience. Therefore, he argues that this quality of consciousness makes it different from all other properties, including emergent biological properties such as life.¹⁹

The essence of the body is spatial extension, the essence of mind is thought. Thought is taken to be the defining attributes of mind which is an incorporeal substance, a substance that is non-spatial in nature. He writes, 'By the term "thought", I understand everything which we are aware of as happening within us, in so far as we have awareness of it.'²⁰ What follows from Descartes' view is that consciousness is essentially a first-person, subjective phenomena, and conscious states cannot be reduced or eliminated into third-person. Therefore, it is consciousness, which makes the explanatory gap between the first-person and third-person perspective. According to the Cartesian concept of mind, we have access to the contents of our own minds in a way denied to us in respect to matter. There is something special about our own knowledge of our own minds that naturally goes with the Cartesian view.

Pradhan argues that the mental life, with its qualia, cannot be nomologically determined by the physical conditions of the universe. The following are the reasons for the thesis that the mental life is independent of the physical body, though they co-exist: '(A). The qualia of the mental states cannot be reproduced in an artificial machine like a robot or a machines table; they are unique to the person concerned. (B). The qualia are the essence of consciousness and so must be intrinsic to the conscious subjects.'²¹ Thus Pradhan concludes that the intelligibility gap between the qualia and the physical world remains, as the qualia are understood widely as belonging to the conscious subjects.

Consciousness makes the gap between the mind and the body, and 'subjectivity' is its most troublesome feature. Self is the subject,

which encompasses our feelings, thinking, and perception. The qualitative character of experience is what it is like for its subject to have the experience. As Nagel puts it, 'Conscious experience is a widespread phenomenon. It occurs at many levels of animal life, though we cannot be sure of its presence in the simpler organisms, and it is very difficult to say in general what provides evidence of it... no matter how the form may vary, the fact that an organism has conscious experience *at all* means, basically, that there is something it is like to *be* that organism... But fundamentally an organism has conscious mental states if and only if there is something it is like to *be* that organism—something it is like *for* the organism.'²²

As we have seen, subjectivity cannot be explained reductively. Again, as Nagel argues, 'It is not analyzable in terms of any explanatory system of functional states, or intentional states, since they could be ascribed to robots or automata that behaved like people though they experienced nothing.'²³ There is a subjective feeling attached to our conscious experience because subjective feelings are the outcome of our conscious experience. That is, consciousness itself cannot be established simply on the basis of what we observe about the brain and its physical effects. We cannot explain which property of the brain accounts for consciousness. Distinct cognitive properties, namely perception and introspection, necessarily mediate our relationships with the brain and with consciousness. We cannot understand how the subjective aspects of experience depend upon the brain that is really the problem.

Consciousness is essentially subjective because this is not a mechanical state, as many philosophers believe, but it is 'I' or 'subject' who experience consciousness. Some of these biological systems are conscious and that consciousness is essentially subjective. The term 'pain' is subjective as it is not accessible to any observer, because it is a first-person experience. For example, I have a pain in my leg. In this case, the statement is completely subjective. The 'pain' itself has a subjective mode of existence. As Searle puts it, 'Conscious states exist only when they are experienced by some human or animal subject. In that sense, they are essentially subjective. I used to treat subjectivity and qualitiveness as distinct features, but it now seems to me that properly understood, qualitiveness implies subjectivity, because in order for there to be a qualitative

feel to some event, there must be some subject that experiences the event. No subjectivity, no experience.²⁴

That is to say that the qualitative experience can exist only as experience some subjects. Because conscious states are subjective in this sense, it is legitimate to hold that there is first-person ontology, as opposed to the third-person ontology of mountains and molecules, which can exist even when there are no living creatures. Therefore, subjective conscious states have first-person ontology because they exist only when they are experienced by a subject as self. It is 'I' who has experience and in this sense, it has the subjective existence. This gap between the self and the body not only establishes an explanatory gap, but also gives the ontology of first-person subjectivity. Therefore, the 'subjectivity' or 'I' is the central problem of the explanatory gap. Cognitive science tries to explain how conscious experience arises from the electrical process of the brain. But it cannot show how and why conscious states belong to the 'subject' or 'I'. This qualitative feature of mental states brings the existence of qualia, which are the qualitative experiences of the human mind.²⁵

ACKNOWLEDGEMENT

My sincere thanks and regards to my supervisor Professor R.C. Pradhan for his constant guidance and for helping me to improve the philosophical quality of my article. All the errors, if any, are mine.

NOTES AND REFERENCES

1. Alexander, S., 'Space, Time, and Deity, Vol. II' (London: Macmillan, 1920), quoted by Brian P. McLaughlin 'Emergentism', in *The MIT Encyclopedia of The Cognitive Science*, Robert A. Wilson and Frank C. Keil (Eds), (Cambridge, Massachusetts: The MIT Press, 1999), p. 267.
2. Penrose, Roger, *Shadows of the Mind* (Oxford: Oxford University Press, 1995), p. 216.
3. Daya Krishna, *Indian Philosophy: A Counter Perspective* (Revised & Enlarged Edition) (Delhi: Sri Satguru Publications, Indian Books Centre, 2006), pp. 435-37.
4. Penrose, Roger, *Shadows of the Mind*, p. 667.
5. *Ibid.*, p. 371.

6. Kim, Jaegwon, 'Supervenience' in *A Companion to the Philosophy of Mind*. Samuel Guttenplan (ed.) (Oxford: Blackwell Publishers Ltd., 2000), pp. 576-77.
7. Kim, Jaegwon, 'The Non-Reductionist's Troubles with Mental Causation' in *Mental Causation*, John Heil and Alfred Mele (eds.) (Oxford: Clarendon Press, 1993), p. 198.
8. Alexander, S., 'Space, Time and Deity, Vol. II' (London: Macmillan, 1927), 2nd Edition, quoted by Jaegwon Kim, in his 'The Non-Reductionist's Troubles with Mental Causation' in *Mental Causation*, John Heil and Alfred Mele (eds.), p. 198.
9. *Ibid.*, p. 8.
10. Searle, John R., *The Rediscovery of the Mind* (Cambridge, Massachusetts: The MIT Press, 1994), p. 111.
11. Daya Krishna, *Indian Philosophy: A Counter Perspective* (Revised & Enlarged Edition), p. 493.
12. Searle, John R., *The Rediscovery of the Mind*, p. 117.
13. Nagel, Thomas, 'What Is It Like to Be a Bat' in *The Nature of Consciousness*, Ned Block, Owen Flanagan, and Guiven Guzeldere (eds.) (Cambridge Massachusetts: The MIT Press, 1998), p. 519.
14. Daya Krishna, *Indian Philosophy: A Counter Perspective* (Revised & Enlarged Edition), p. 448.
15. *Ibid.*, p. 462.
16. Nagel, Thomas, 'What Is It Like to Be a Bat' in *The Nature of Consciousness*, Ned Block, Owen Flanagan and Guiven Guzeldere (eds.), p. 519.
17. Chalmers, David J., 'Facing Up to the Problem of Consciousness' in *Explaining Consciousness: The 'Hard Problem'*, Jonathan Shear (ed.) (Cambridge, Massachusetts: The MIT Press, 1997), p. 12.
18. *Ibid.*, pp. 19-20.
19. Chalmers, David J., *The Conscious Mind* (Oxford: Oxford University Press, 1996), p. 48.
20. Descartes, Rene, *The Philosophical Writing of Descartes*, Vol. I, Cottingham, John, Stoothoff, Robert, Murdoch, Dougald (ed. and trans.) (London: Cambridge University Press, 1984), p. 195.
21. Pradhan, R.C., 'Why Qualia Cannot be Quined' in *Journal of Indian Council of Philosophical Research*, Vol. XIX, No. 2, April-June 2002, p. 97.
22. Nagel, Thomas, 'What Is It Like to Be a Bat?' in *The Nature of Consciousness*, Ned Block, Owen Flanagan and Guiven Guzeldere (eds.), p. 519.
23. *Ibid.*
24. Searle, John R., *Consciousness and Language* (Cambridge: Cambridge University Press, 2002), p. 40.
25. I thank Professor Daya Krishna (Editor, JICPR) for his valuable suggestions and comments on my article.