Emergentism & Supervenience

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What is Emergentism?

According to emergentism, the higherlevel quality emerges form the lower level of existence and has its roots therein, but it emerges there from, and it does not belong to that level, but gives rise to a new order of existence with special laws.

Samuel Alexander says, "the higher-level of quality emerges from the lower level of existence and have its roots therein, but it emerges there from, 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 "

Prof. Rajakishore Nath, Department of Humanities & Social Science, IIT Bombay, 1920

To say that an emergent characteristic is a novel means:

- Firstly, it is not simply a rearrangement of pre-existing elements, although such 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 even on the basis of ideally complete knowledge of the state prior to its Prof. Rajakishore Nath, Department of Humanities & Social Science, IIT Bombay

- Some philosophers argue that consciousness might be an emergent property, in a 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

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- The problem of emergence in this context starts with 'life' and it should be remembered that 'brain' is not just a piece of inanimate matter, but a part of the 'living' body.
- 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 prof. Rajakis for wath Department of Humanifies & Social Science, in Bombay

Now, the question are;

- ➤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 be present also in other appropriate physical systems?
- How could it be that such a seemingly ingredient as non-computational behavior presumed to be inherent in the actions of all material things, so far

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The first question is that the 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 whatever. If it is microtubules that control the activity of the brain, then there must be something within the action of Department of Humanities & Social Science, Il

- Firstly, there is some kind of useful noncomputable 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.

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

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Symbols have no meaning. They have no semantic content, they are not about anything. They have to be specified purely in terms of their formal or syntactical structure. By definition, our internal mental states have certain sorts of contents.

The mind has more than a syntax, it has a semantics. The reason that no computer program can ever be a mind is simply that a computer program is only syntactical, and minds are more than syntactical. Minds are semantic in the sense that they

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Then, the concept of emergence combines the three components of supervenience delineated above, namely, property covariance, dependence, and nonreducibility.

➢The emergentism can be regarded as the first systematic formulation of non-reductive physicalism.

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 Prof. Rajakishore Nath, Department of Humanities & Social Science, IIT Bombay

➢No two things could differ in a mental respect unless they differed in some physical respect, that is, imperceptibility with respect to physical properties entails indiscernibility with respect to mental properties. That is the core idea of mind-body supervenience.

➢Kim points out that one must notice that the mental is dependent on the physical but not vice versa, because the mental states are directly a consequence of the physical states.

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

(a) All concrete particulars are physical.(b) Mental properties are not reducible to physical properties.

(c) All mental properties are physically realized; that is, 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.

(d) Mental properties are real properties of objects and events; they are not merely useful aids in making predications or fictitious manners of Prof. Rajakishore Nath, Department of Humanities & Social Science, IIT Bombay

- Emergentists in general accepted purely materialist ontology of concrete physical objects and events.
- Samuel Alexander, one of the principal theoreticians of emergence school, argues that there are mental events over and above neural processes.
- ➢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 emergentist metaphysical world-view.

- Although the emergentists' idea of reduction or reductive explanation diverges from the model of reduction implicit in current anti-reductionists argument, 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.

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 his its being in physiological conditions. Hence it is that there can be and is an independent science of psychology... No physiological constellation explains for us why it should be mind."

Alexander, S., "Space, Time and Deity Vol. II," Macmillan, London, 1927. Prof. Rajakishore Nath, Department of Humanities & Social Science, IIT Bombay

- The strong supervenience thesis does not bridge the gap between mental and physical because it fails to account for how the mental states with their qualitative content arise at all in a material environment.
- ➢Now the question is: Is it not possible that the mental life not be there even if the physical universe exists perfectly?

- John R. Searle has given 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.

H₂O = Water

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The existence of consciousness can be explained by the causal interactions between elements of the brain at the micro level, but consciousness cannot itself 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'?
- ➢ No description of the third-person type would convey the first-person character of pain because the firstperson features are different from the Prof. Rajakishore Nath, Department of Humanities & Social Science, III Bombay

Nagel says,

"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."

Nagel, Thomas, "What Is It Like to Be a Bat", 1998

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- ➤This is due to the emergence of selfconsciousness out of consciousness and thus making it radical different from what is it, if it is at all human levels.
- ➤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'.

The denial of 'I-consciousness' which is an inevitable accompaniment of selfconsciousness.

Therefore, from the above exploration, it follows that once consciousness emerges from physical properties, it will never be reduced to it.

➢No explanatory gap between mind and body.

The hard problem of consciousness is the problem of experience, especially to first-person character which cannot be explained within a scientific framework.

- \succ 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.

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