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Consciousness: A Quest Still Unanswered

Dr Saumya Harsh Mittal*

Consultant Neurologist and Assistant Professor, School of Medical Sciences and Research, Sharda University, Greater Noida, India

***Corresponding Author:** Dr Saumya Harsh Mittal, Consultant Neurologist and Assistant Professor, School of Medical Sciences and Research, Sharda University, Greater Noida, India.

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Consciousness has the following synonyms- alertness, cognizance, awareness, concern, sensibility, recognition, realization, mindfulness, carefulness and regard. In a music video, by Anyma and Chris Avantgarde, it is described as sentience of internal, external or virtual existence. In brief, consciousness is everything you experience.

The origin and nature of consciousness have been a mystery for a long time. The means to study the consciousness remain an engineering NO - GO. The measurement of consciousness remains a subjective and an allusive unit.

Most people accept consciousness as a given. The scientists look for its physical footprint. Which priced subunit of the complex grey and white brain matter gives rise to consciousness? Are there any specific 'consciousness' neurons? Where are they located? How are they influenced by other neurons, their neurotransmitters and the milieu? 'Neuronal correlates of consciousness' are defined as minimal neuronal mechanisms jointly sufficient for any specific conscious experience. These need to be explored further. Does this neuronal correlate of consciousness need a specific and limited location? Or does it need the complex correlation of the entire complex brain circuitry?

Traditionally, different parts of the brain and the nervous system have a specific purpose. The complete and orderly functioning of the nervous system needs these parts and their functions to be closely correlated. Loss of these functions, however, causes different symptoms. The damage to the spinal cord can cause loss of bowel and bladder control and the loss of sensation and function of limbs. These patients may wet their beds and even soil themselves and not realize the same. Damage to the 'little brain' - cerebellum - loses the ability to move fluidly and do the things in order. A patient with brain stroke may lose control and sensation of a part of their body. They may even forget that they have some parts of the body. The patients with different forms of dementia lose their memory, their interests, and their choices, lose social care. And yet they can communicate, tell their names, perform other activities needed with daily living. In short, all functions other than those lost, are performed.

The antonyms include arrogance, negligence, carelessness, thoughtlessness, disregard, senselessness, inattention, neglect, and above all unconsciousness. As depicted in the above examples, the patient shows neglect (e.g. when the patients forget that they have limbs and body parts in stroke), they may have inattention, social disregard, thoughtlessness (e.g. as and when they lose their cognitive functions in dementia), loss of sense of bowel, bladder, and limbs (e.g. a person may be lying comfortably paralyzed with both limbs soiled in their stools and urine and covered with ants in a spinal cord disorder). In a way, these people are not conscious about themselves and their surroundings. They are unaware of their body parts, body milieu, or surroundings. Yet they can perform other activities, e.g. eat, look, talk, and give other responses. And hence, are not really unconscious.

Which brings us back to the question- where lives the genie of consciousness? Does it inhabit the space within the lamp? Or does it embody the lamp itself, thereby making each part of the lamp a part of the genie? Does it matter that the lamp be whole and intricately connected?

The brain is like a pastry. The bread of the pastry forms the white matter while the cream forms the grey matter. The tutty fruity in the bread resembles the grey matter isles of the brain like the thalamus and the basal ganglia. The total grey matter is like a thin crust pizza with 6 layers of toppings. It is this 6 cheese pizza that may form the substrate for consciousness, in part or in entirety.

Now this neocortex is the most recently evolved part of the brain. The neuronal correlates of consciousness have recently been postulated to be in the neural connections of the parietal, temporal, and occipital zone. Frontal lobe has also been known to be involved in consciousness and perception. Their complex interconnected connections is essential to have separate auditory, visual and other sensory perceptions and their ability to form the cause and effect relationship is thus the seta of consciousness.

However, the part of 'animalia' kingdom that doesn't have a neocortex still shows self-preservation. Is not self-preservation a complex of consciousness? Some of them even have an "attack" mechanism. Do they attack without consciousness and purpose? If so, neocortex cannot be necessity of consciousness. Intelligence probably, but not consciousness.

Further research is still needed.

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