



Are Emotions Embedded in Consciousness?

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ABSTRACT

Consciousness is still a topic which is least understood and taken as a 'Hard Problem'. The general view of consciousness is your awareness of self and surroundings. But there is no universally accepted definition of Consciousness.

There are divergent views about the components of Consciousness. Some think that Wakefulness and Awareness are its two components. Others add many more components like autonomic physiological functions, thoughts, feelings, emotions etc... We take up the question of whether emotions are embedded in Consciousness.

This paper discusses this point.

Keywords: Consciousness, Emotions, Feelings and consciousness, Characteristics of Consciousness

A thought prevails among postmortem survival researchers that Consciousness outlives death. No one knows where Consciousness resides, and from where it enters our bodies and where it goes at the time of death. Furthermore, what constitutes Consciousness? Does it have thoughts, memories and emotions? If it outlives death, does it carry the thoughts, memories and emotions with it?

This thought came to my mind when I was intensely remembering my deceased loving sister on her wedding anniversary day! I felt a surge of love in my mind and wondered whether her consciousness would be feeling the vibrations stirred in my conscious mind. Then this question arose in my mind ***whether emotions are embedded in Consciousness!***

I was tempted to explore this question and started exploring the subject and the logical chain of thoughts kept on pouring in and the result is this research paper.

Emotions come into play when we start thinking while in a conscious state but are these a part of consciousness or do these come into awareness and then disappear somewhere? Are these always hidden in consciousness or just happen to surface up and then wither away? If these are not embedded there, then from where do they come? If these are not a part of consciousness then discarnate spirits may be aware of what is happening but may fall short of feeling anything. In fact, it may be that they are aware but are unable to act because they do not have a body and if a body is needed for emotion, they can't even emote. It is amusing to imagine their world!!

But is it that emotions do not reside in consciousness? We shall know this if we know what may be constituting consciousness. Let us explore what components may be constituting consciousness.

Components in Consciousness

It is evident that Consciousness comprises awareness because it is its essential component. Some Chinese researchers¹ add wakefulness as an additional component. As per them

"According to the latest neurosurgical research, there are two key features of consciousness: (1) the state of consciousness (i.e., wakefulness) and (2) the content of consciousness (i.e., awareness).

Consciousness includes both the level of consciousness and its content. The level of consciousness is key to maintaining sobriety. The generation of consciousness content depends on the integration of the various sensations in the posterior cortex of the brain. The opening of the eyes usually indicates the state of being awake and being able to talk almost always indicates further wakefulness. It is often thought that an awake individual is also aware; however, this is not always true. Most of the content of consciousness is based on the state of awakening.

These researchers feel that Consciousness comprises of Wakefulness and Awareness. Wakefulness is the state of Consciousness and Awareness is its content. Thus, wakefulness being the state of consciousness means you are conscious; but how much awareness is there will be known by the content of consciousness you possess at a time. This means that you may be awake i.e., you are in a conscious state but if the content of consciousness is zero, you

may not be aware of anything. Yes, many a time we are looking at a thing but are not perceiving it. This means that even though we are conscious of the thing but we are not aware of it. Likewise, many a time we hear some things but those things do not register in our minds i.e., we heard but did not perceive it. This happens many a time because our awareness wanders off; we are conscious that we heard but are not aware of its content.

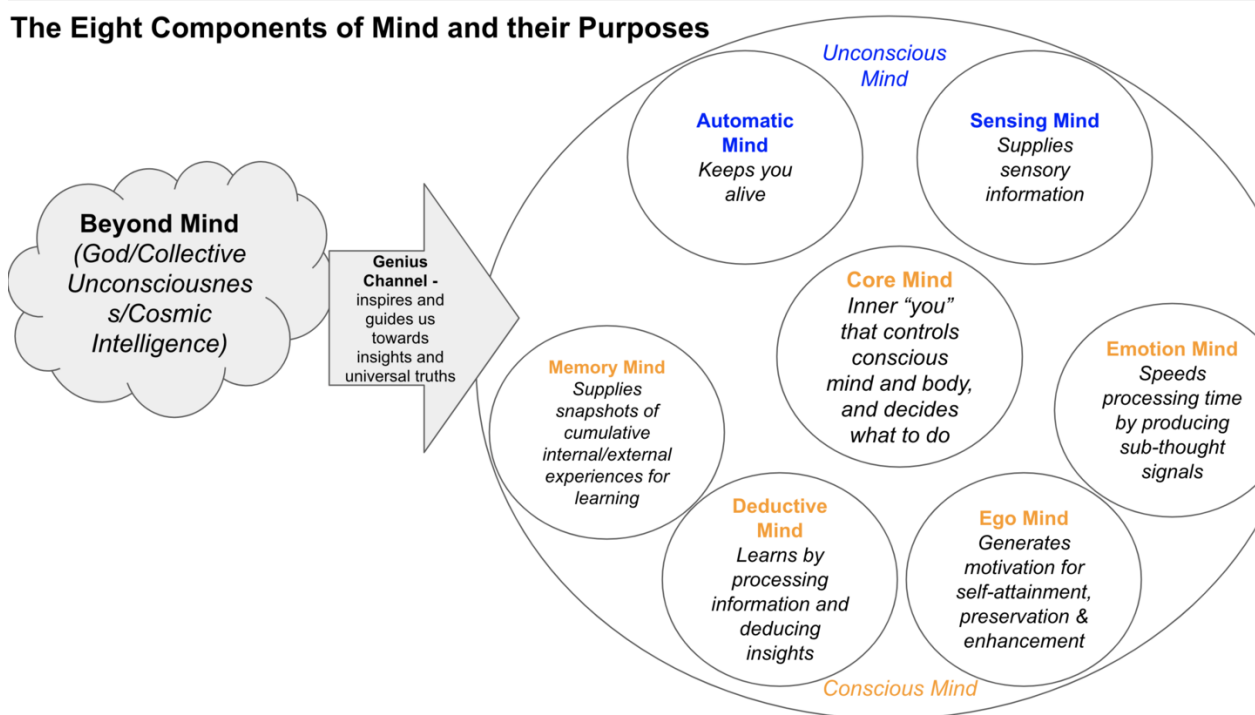
This view appears totally different from the usual understanding of Consciousness which is awareness about self and environments. This view misses the aspect of wakefulness which is the true state of consciousness.

Awareness in the above is the content of Consciousness. The varying degree of awareness creates in us what we generally term 'Altered States of Conscious' where we are conscious but our consciousness is altered. Wakeful denotes that we are conscious and varying degrees of awareness decide up to what level we are conscious. A varying degree of awareness in a wakeful state takes us to different altered states of consciousness.

These researchers talk about only two contents of consciousness; there may be many more. They are silent on the issue of emotions or thoughts being a part of the mind or consciousness, ego and intuition also may reside in consciousness. Gabe Kwakyi² gives a more comprehensive view of what all are included in the mind i.e. our consciousness.

As per him, the mind has eight components.

The Eight Components of Mind and their Purposes



Prompted by the above thought, I am tempted to say that 'Consciousness' may also have the same eight components (maybe mind and consciousness mean the same thing). Let us view them

- **Automatic component:** It keeps you alive through the auto nervous system i.e., even though we are in a vegetative state of awareness, our breathing and hearts keep on functioning in an autonomic way and these keep us alive
- **Sensing Component**—The component which brings awareness through the use of our five senses.
- **Core Component** – This is our inner self which controls our conscious mind and our body and guides our mind and body for actions
- **Memory Component**--- This part of consciousness may be the brain part which stores our learning as memory and uses it for further learning
- **The Emotion Component**--- It is the part of the conscious mind that produces emotions or feelings in response to the inputs provided by the Sensing Component or other components of consciousness. This component learns to generate emotional responses based on the inputs of the sensing component and the orientation of core content i.e., the inner self.
- **The Ego Content**--- It is the part of consciousness that is continuously evolving vision of the inner self or the core component. This component tirelessly urges the core component to act in order to attain, preserve and enhance. It tends to idealize and improve the inner self.

It strives for new achievements on the path to its ideal vision of self for keeping us alive and reproducing but is not so well adapted to modern society. This component is conducive to thought generation.

- **The deductive component**--- This component is responsible for our learning and producing valuable thought concepts to enable the core component—the inner self to do more than just stay alive. This component is the intelligence which is necessary to progress towards the Ego Component’s vision of an improved inner self.
- **The Genius Component**—This component is able to bring in inspiration from beyond mind and body, sourced from the accumulation of all the experiences in the totality of the universe. The production of inspiration does not occur within our bodies but this component acts as a channel to collective consciousness from where it captures cosmic intelligence.

Logically the above components are essential parts of our being and we all have these components in varying degrees. Human life may be modelled with these components. It is through our own observations that we have created this thought that consciousness has these eight components. Even though we do not have exact knowledge about Consciousness but our day-to-day observations logically lead us to believe that consciousness must be composed of these components.

But are these permanently embedded in consciousness and remain intact when the consciousness leaves our body at death? Does consciousness keep evolving for betterment even after we die, do we still emote, do we still have deductive logic, do we still think.... Questions are many and above all, is the assumption that the consciousness has the above components, really, true?

The answer is difficult to find because to date no one has understood consciousness and in scientific circles, it is still considered a ‘Hard Problem’. But our general observations indicate that among other things emotions may be a part of Consciousness. But that is only a thought. What is the ground reality?

To scientifically reach the ground reality, we may have some insight into the problem by seeking solutions to the following two questions:

- Whether we are having emotions in a consciousness-less state

And

- Is it true that we may be conscious and still be emotionless?

Answers to the above will lead us to the ground reality on whether ‘Emotions are embedded in Consciousness’. Let us explore these questions:

Do we have emotions while we are in a consciousness-less state?

A coma is a state in which we lack consciousness. But do we feel, are we having emotions in this state even though the same are not being expressed?

Michele Farisco³ posits

“Emerging evidence suggests the unconscious can experience many of the things that conscious people do.

Recent developments in cognitive science provide empirical evidence that the unconscious brain can perform almost all the activities that we (wrongly) think are exclusive to conscious beings.

This means that unconscious beings are not only cognitively active but might also have positive and negative emotions.

The very idea that consciousness is not a requirement for feeling emotions opens up a minefield of questions about how best to treat unconscious people.

Since the 1970s there has been impressive progress in the scientific investigation of consciousness. In particular, brain imaging techniques, which have allowed us to look directly into the living brain, have given us new tools to investigate consciousness.

This has also impacted the study of the so-called “disorders of consciousness” like coma, unresponsive wakefulness syndrome, and what is known as a minimally conscious state.

Coma patients are characterized as having a complete absence of both wakefulness and awareness, meaning they lack both vigilance and the ability to consciously process information.

Recent research shows that the unconscious can correlate information, associate meaning, reason quickly, develop complex computations, selectively focus on information, and make complex inferences. They can make decisions to act based on information gathered from their surroundings, evaluate their experiences, and demonstrate goal-directed behaviour. Hence the lack of visible emotion is not sufficient evidence for the lack of emotion per se and there might well be an internal emotional life that we just don’t see.”

The above means that brain studies do indicate that while we are in a coma, we may still be carrying emotions internally even though the same are not expressed. This means even though consciousness is not there our emotions are there and they lie latent inside us

General consciousness does express emotions but when we lose consciousness, emotions don't leave us. The above study is suggestive of the fact that emotions are alive even when consciousness is not. Hence emotions may not be embedded in the consciousness and possibly they reside elsewhere!

On rethinking, I intuitively have a feeling that we may be on the wrong path. Consciousness, even though, not fully understood, factually means that all living things are conscious and vice versa. Thus, consciousness must be present till the person is alive and only on death does consciousness leave us. This thought brought to me a question of whether, really, Coma is a state which is consciousness-less. Exploring the literature, I found some startling revelations:

A paper in NHS-UK⁴ posits a correct view of consciousness and there it is stated that Coma is a disorder of consciousness (even the above narration also hinted that Coma could be a disorder of consciousness):

“A disorder of consciousness, or impaired consciousness, is a state where consciousness has been affected by damage to the brain.

Consciousness requires both wakefulness and awareness. Wakefulness is the ability to open your eyes and have basic reflexes such as coughing, swallowing and sucking. Awareness is associated with more complex thought processes and is more difficult to assess. Currently, the assessment of awareness relies on physical responses being detected during an examination.

The main disorders of consciousness are:

- *coma*
- *vegetative state*
- *minimally conscious state*

Coma

A coma is when a person shows no signs of being awake and no signs of being aware. A person in a coma lies with their eyes closed and doesn't respond to their environment, voices or pain.”

If it is a disorder of consciousness, means that consciousness is dormant and is being expressed only in the form of only autonomic functions of breathing and heartbeating. But that does not mean that other activities like thinking, emoting etc. are not happening. These are happening but in a way that these are not observable explicitly. This is what is proved by the above research. Thus, we had wrongly assumed that Coma is a consciousness-less state; it is a dormant conscious state where wakefulness has gone and the content of awareness is zero. This leads us to the fact that the very definition of consciousness that we discussed is wrong. Truly speaking no one has, so far, been able to define ‘Consciousness’ in a universally acceptable way. The above thinking that we have not reached a consciousness-less state in a coma resonates well that a consciousness-less state in living things is reached only on death. Till we are alive we are conscious. Coma may be only a disorder of consciousness and does not make us reach a consciousness-less state. So, our inference that since emotions continue to exist even when we are in a coma means that emotions exist in a consciousness-less state is not correct. In fact, there does not exist a consciousness-less state for any living entity, consciousness-less means that consciousness has permanently gone and that happens only when a person dies. It is another matter whether consciousness may or may not outlive death.

Hence exploration of 1st question does not lead us to an answer to the basic query ‘Whether emotions are embedded in the consciousness’. In fact, that question becomes irrelevant because there is no consciousness-less state for a living human.

Now the only recourse left to find the answer is to explore question 2.

Now let us look at the second question—Is it possible that we are conscious but without any emotions?

Consciousness without Emotion

Prima Facie emotions stay with us till we die; maybe they also outlive death. Similarly, consciousness stays with us till we die; maybe it also outlives death. It is interesting that while both are within us when we are alive, do they work in unison or consciousness can work without emotions?

It is observed that normally a person is conscious and has emotions. Are there any group of people who are conscious but are without emotions?

Wikipedia⁵ gives an account of people who have emotional blindness i.e., they are without emotions:

*There is a neurological phenomenon called **Alexithymia** in which a person has emotional blindness. It is characterized by significant challenges in recognizing, expressing, sourcing, and describing one's emotions. It is associated with difficulties in attachment and interpersonal relations.*

The term alexithymia was introduced by psychotherapists John Case Nemiah and Peter Sifneos in 1973 to describe a particular psychological phenomenon. In its literal sense, alexithymia signifies "no words for emotions". This label reflects the difficulty experienced by individuals with this condition in recognizing, expressing, and articulating their emotional experiences. Nonmedical terminology, such as "emotionless" and "impassive", has also been employed to describe similar states. Those who exhibit alexithymic traits or characteristics are commonly referred to as alexithymics or alexithymiacs.

These groups of people do suffer because of some aberration in the brain.

It is unclear what causes alexithymia, though several theories have been proposed.

Early studies showed evidence that there may be an interhemispheric transfer deficit among people with alexithymia; that is, the emotional information from the right hemisphere of the brain is not being properly transferred to the language regions in the left hemisphere, as can be caused by a decreased corpus callosum, often present in psychiatric patients who have suffered severe childhood abuse. A neuropsychological study in 1997 indicated that alexithymia may be due to a disturbance to the right hemisphere of the brain, which is largely responsible for processing emotions. In addition, another neuropsychological model suggests that alexithymia may be related to a dysfunction of the anterior cingulate cortex. These studies have some shortcomings, however, and the empirical evidence about the neural mechanisms behind alexithymia remains inconclusive.

Unfortunately, we have around 10% of people suffering from this phenomenon. The above revelation shows that people suffering from these disorders can't express emotions. Such a phenomenon is not seen in normal healthy conscious persons. These are exceptional cases where the brain has a disorder that blocks feelings expression. Emotions may lie in the consciousness but cannot be expressed. Such are rare cases and hence they cannot be taken as evidence that consciousness does not have emotions embedded in it. Emotions could be embedded but their expressions are hindered by an aberration in the person's brain. So apparent cases are not that of normal healthy conscious persons and hence they do not contradict the presumption that emotions are embedded in consciousness.

Let us explore the views of some more thinkers on question 2 under discussion.

Some say that meditation takes you to a state where your mind is thoughtless and, hence, must be emotionless. This could mean that we may be conscious but emotionless. But this is not true. It is established by brain studies that even in meditative estates we have emotions. A paper in *Destination*⁶ brings out this fact:

Richard Davidson, a scientist at the University of Wisconsin-Madison, is at the forefront of research on meditation. With the help of the Dalai Lama, he began recruiting Tibetan Buddhist monks to come to his research laboratory to have their brains scanned. Dr. Davidson wanted to see if people's brains change when they perform meditation. The findings suggest that during meditation, a range of brain areas involved in attention and emotion monitoring are engaged. Additionally, those who are experts at meditation — such as Buddhist monks who have been practising meditation for decades — can slip into this altered brain state within moments. People who meditate also do better at ignoring distracting information and regulating their emotions compared to non-meditators.

Similar views are presented by Demian Whiting⁷ wherein he asserts that a bond between consciousness and emotion exists which is proved by brain activities:

Both emotion and consciousness depend on neural representations of the subject's own body, arising from structures in the brainstem and medial telencephalon that receive interoceptive information. There are domains where emotion and consciousness overlap and interact, and we suggest that each is necessary for aspects of the other.

*If the correlation between neurobiological descriptions and consciousness is sufficiently strong, the neurobiological data could be used as a diagnostic criterion. Indeed, a recent study used fMRI data to conclude that **'Structures that are important for emotion are also important for the level of consciousness.'***

Not only is consciousness important to aspects of emotion but structures that are important for emotion, such as brainstem nuclei and midline cortices, overlap with structures that regulate the level of consciousness.

Brain mapping shows that brain structures for emotions and consciousness have a commonality; hence, these must be correlated.

Antonio Damasio and Hanna Damasio⁸ go a step further when apart from believing in a correlation between emotion and consciousness they posit that feelings or emotions are the source of consciousness. They begin by sharing their thoughts on consciousness and lead to their assertion that feelings are the source of consciousness:

Consciousness identifies mental contents as belonging to a specific organism and vice versa; it connects a mind with its respective body and establishes mutual ownership. To be conscious consists of experiencing a correspondence between mental contents and a specific living organism. In the normal awake state, the identification and connection happen automatically, not as a result of overt reasoning. We hypothesize that homeostatic feelings naturally provide the revealing link between

- Events occurring in the "body" component of the partnership

and

- events experienced as occurring in the "mind".

We note that the spontaneous conscious nature of homeostatic feelings is the consequence of physiological conditions.

They go on to propose a hypothesis regarding Homeostatic feelings and consciousness:

We hypothesize that

(1) *homeostatic feelings inaugurated consciousness in biological evolution*

and that

(2) *they were selected because their spontaneous conscious nature enabled an evolutionary novelty: a strategy of life regulation based on overt information regarding the current state of life in an organism.*

In other words, life regulation became grounded on the “knowledge” provided by continuous homeostatic feelings, a novel cognitive step generated by an affective process.

We shall elaborate on the basis and content of their hypothesis but to understand the hypothesis meaningfully we must first understand what *Homeostatic Feeling* really means:

Wikipedia⁹ amplifies the meaning of Homeostatic feelings as a class of feelings (e.g. thirst, fatigue, pain, desire, malaise, well-being) that inform us about our physiological condition. Affective neuroscientist, Jaak Panksepp, identified homeostatic feeling as one of three primary classes of affect:

- homeostatic affect: e.g., thirst, fatigue
- sensory affect: e.g., touch, warmth
- emotional affect: e.g., anger, fear.

Some homeostatic feelings motivate specific behaviour aimed at maintaining the body in its ideal state. For example, hunger motivates eating, fatigue motivates resting and hyperthermia motivates stepping into the shade.

These feelings create an awareness of our physiological condition by their effect on our bodies and motivate our behaviour to maintain our bodies in the ideal state.

Coming back to the theory by Damasio:

Our hypothesis results from placing some established facts in a novel perspective. The first fact is that homeostatic feelings are spontaneously conscious mental events. If homeostatic feelings were not conscious to begin with, they would not have been useful from the standpoint of life regulation. We also suggest that if feelings had not been conscious, they would not have become selected features of life regulation in complex living organisms.

The essence of consciousness is the identification of a particular mind with a particular organism. This “knowledge” is provided by the continuous experience of homeostatic feelings generated by the ongoing process of life regulation as the organism attempts to maintain operations in the homeostatic range.

We believe that homeostatic feelings were the inaugural phenomena of consciousness in evolution and that they were selected because knowledge was a major evolutionary advantage. The knowledge available to conscious homeostatic feelings made deliberate life regulation possible. Homeostatic feelings are conscious inherently, and they make consciousness possible for other sensory material, such as exteroceptive sensory images. But we can be conscious of those images only when the feelings that they generate are also present. No additional mechanism is needed to provide consciousness for large arrays of contents. Consciousness emerges from the homeostatic feelings of the subjective owner as triggered by few or many imagetic contents on any theme.

Lastly, the unusual physiological features that enable feelings, and thus consciousness, depend on the presence of a nervous system but not on an isolated nervous system. Organisms without nervous systems, capable of taking intelligent actions to regulate their lives but not able to represent such actions or their consequences, appear to be nonconscious.

Thus, as per Damasio's thinking, emotions are the source of consciousness and hence consciousness without emotion is not possible.

With this, we approach the end of this paper.

Conclusion

We started with a definition of consciousness i.e., Consciousness is awareness about self and the environment. We also found that there is a thought put forth by some thinkers that it has only two components i.e., Wakefulness and Awareness. Wakefulness is the state of Consciousness and Awareness is its content. We discussed that this thought may not be true because even when wakefulness and awareness are missing, we can have consciousness. In fact, consciousness remains with all living beings till they die. Death is the only point of separation of consciousness from the living being. Whether consciousness outlives death and exists even after death is not known.

We also found that while consciousness may remain with us without wakefulness and awareness it may have many more components other than these two. We discussed that it may have as many as eight components.

Coming to the question of whether emotions are embedded in consciousness, we explored this question from different angles and finally came to the conclusion that emotions and feelings are not only embedded into consciousness, they may even be a source of consciousness.

I conclude the paper after sharing the thoughts of some thinkers about this question:

A philosopher, Amiee Sparrow thinks that the type of consciousness we are used to relies heavily on our emotions since they color almost every aspect of our perception of life. One without the other would seem empty and devoid of meaning. A lot of what we know and what we experience are based on our emotional reactions and consciousness is just a result of what it takes for us to make sense of our world naturally. Since they are intricately interlocked, it's impossible to separate or see them on their own. I do believe that the way our consciousness works determines how our emotions work and vice versa.

Sadguru Sri Sri Dadaji Maharaj feels that Consciousness is an integral part of emotions, mental enjoyment and also an integral part of our lives. Emotion and consciousness are entangled with each other. When you behave emotionally, you are conscious of your emotions. When you behave according to any of your emotions, it states that you are aware of it, and that means you are conscious. So we cannot be conscious without emotions.

Yonas Lunata, MSW in Clinical Social Work opines: Consciousness is a very broad term, like the word God; both words/terms may have a unique meaning for every individual reader.

In the broadest sense, consciousness is what we call the experience of being awake, aware of and attending to our immediate experience.

Emotion is a feeling following a thought. A thought may be conscious, or, unconscious.

Emotion is energy in motion. Our bodies contain this energy in motion, holding it in, and, expressing it out, depending upon what we tell ourselves about these emotions.

To live fully as a human, yes, emotions are a must.

You can be completely logical and conscious without emotion if you choose, but you will be alone or surrounded by other emotionless beings; AI, perhaps.

Higher levels of consciousness are related to emotion, in my opinion. One can KNOW something consciously, with the intellect and then there is gnosis, which is more of an experience. Experience implies feelings, ergo emotion. This brings UNDERSTANDING.

Emotions are connected to our "early warning system" of fight or flight from our primate brain. So, yes, emotions are related to consciousness.

(Source:<https://www.quora.com/What-is-the-relationship-between-consciousness-and-emotions>)

As can be seen from the above discussions, there is a widespread belief that Emotions are embedded in Consciousness.

How true is the quote by Gurudev Sri SriRavishankar:

"Consciousness is pure and unblemished. And all kinds of emotions are a part of it."