CHAPTER-02

A) **Nature of Phenomenal Consciousness:**

In our first chapter we have seen that the problem of phenomenal consciousness plays a key role in our understanding the nature of consciousness. In this chapter we shall present a brief discussion about the nature of phenomenal consciousness.

Consciousness is one of the most interesting, perhaps the most mysterious concept in philosophical discourse. When we say something about an object, we also think that we are doing this job consciously. When we think, perceive and act then a sort of information processing takes place with an internal aspect. This internal aspect is characterized as the subjective quality of experience. The subjective quality or phenomenal character of experience which is also called subjectivity or qualia or phenomenal nature of consciousness will be addressed in this connection.

The meaning of consciousness, according to dictionary, is 'the having of perception, thoughts, and feeling, awareness'.[1] But this definition is unable to explain all the aspects of consciousness. Rather a big part remains untouched. To have the proper concept and meaning of consciousness, we have to follow the ideas presented by some thinkers regarding this matter.

To explain consciousness, philosopher David Chalmers distinguishes between two concepts of mind ---phenomenal and psychological. On the one hand the phenomenal concept of mind is that which is associated with a consciously experienced mental state. On the other hand, the psychological concept of mind is that which forms the causal or explanatory basis for behavior. In Chalmers words, 'on the phenomenal concept, mind is characterized by the way it feels; on the psychological concept mind is characterized by what it does'.[2] Whatever way the philosophers, psychologists and neuroscientists want to define consciousness, the

essence of consciousness remains feeling a certain way which is a qualitative subjective experience or subjectivity. We see that phenomenal consciousness has an essential feature which is called subjectivity. In general, subjectivity is a part of the explanandum that needs closer investigation for study of consciousness. According to Shoemaker, -'it is essential for a philosophical understanding of the mental that we appreciate that there is a first person perspective on it, a distinctive way mental states present themselves to the subjects whose states they are, and that an essential part of the philosophical task is to give an account of mind which makes intelligible the perspective mental subjects have on their own mental lives.'[3] When we want to discuss about the subjectivity of consciousness, we should trace the structures and features of experiential life. The subjectivity of experience is spread over a range of conscious mental states that also possess subjectively accessible qualitative features. Thomas Nagel opines that subjectivity can be explained as 'what it is like' to perceive a block triangle is subjectively distinct from what it is like to perceive a red circle. In his article 'what is it like to be a bat?'[4] –he presents the 'bats' example, to show that our subjective and objective experiences are quite different. The objective experiences are related to the processing of information in the brain. By contrast, subjective experiences are entirely our own feeling. It cannot be 'shared' with others. The qualitative character of our experience is purely subjective. It appears to us in a certain way, like judged, seen, feared, remembered, smelled etc. It is one kind of sense of ownership. When I experience Tajmahal, white stones, orange, tower, all these experiences share a certain feature: they are all felt as mine. All these experiences have a common feature. They all involve a first person perspective. W.G.Lycan, in his book 'Consciousness and Experience', explains that subjectivity involves a presentation from a point of view. We can account for this 'point-of-view' aspect of representation by the possibility that such aspect can be represented by someone else in a

third-person, scientific way. David Chalmers calls such feeling or subjective experiences as 'qualia' which also gives rise to the so-called 'hard problem' of consciousness.

However all humans have some mental states. Some of them are conscious. Conscious states such as pain states, visual experience and so on are such that it is 'like' something for the subject of the state to be in them. In other words, when there is something it is like to be in a mental state, that mental state has a phenomenal aspect or phenomenal character. For example, pain has a distinctive phenomenal aspect or character – it is painful. We can say phenomenal consciousness is a kind of experience. Phenomenal conscious properties are experiential properties. The totality of the experiential properties of a state are 'what it is like' to have it. All experiences of seeing, hearing, and smelling and pains are phenomenally conscious states.

The different intentional contents are the basic feature of phenomenal consciousness. However, famous neuro-physiological theorists like Francis Crick and Christof Koch offer a definition: 'a synchronized 35-75 hertz neural oscillation in the sensory areas of the cortex is at the heart of phenomenal consciousness.'[5]Our physical or functional nature does not help us to understand how our subjective experiences can be explained. The question is how does our neural activity give rise to a state of consciousness? This is known as explanatory gap[6]. Consciousness, considered in this sense, is phenomenal consciousness. Using synonyms, it can be described as 'subjective experience' and also as 'what it is like to be us'. Ned Block opines that phenomenal consciousness is something 'that we find so hard to understand how it could be a brain state, on how it could be supervened or determined by a brain state. Phenomenal consciousness is a thing such that we don't understand why it's determined by one brain state rather than another'.[7]

Generally we say that, phenomenal consciousness is experience. What makes a state phenomenally conscious is that there is something 'it is like'. Consider the case of

afterimages of house built with a various colourful marbel stones. A teacher instructs his students to stare at this house for 20 seconds in good light. Then he instructs his students to look at white wall. As a result the students see the wall coloured. The fact is that afterimages brought about by brightly colored things have the complementary colors of the colors of the first seen objects. This principle can easily be verified by staring at some brightly colored things in strong light, then looking at a white surface. Red or green will each produce the other, as will blue or yellow. This little experiment will also demonstrate that the distance of the after image will be the same as the distance of the surface upon which one's eyes are focused.

One possible answer is that the differences among the neural events are the cause of our afterimages. These neuroscientific explanations of how afterimages are produced, will never give any reason to use color words. So it will not give a complete answer to our question of how colors come into the afterimages that neural activation brings about. In a word, the neural process like wavelength composition of sunlight, lens, retina, chemical changes, muscle contractions etc. move –it is observable. Nowhere in this list do we find red or green or blue or any others color. But we see green or black or any other color in the house. All such kind of qualities we have mentioned such as colors, taste, smells, degrees of pressure etc. are phenomenal qualities. So our basic question is how do phenomenal qualities come into a full accounting of what happens when a person is having a perceptual experience or sensations?

These basic questions are addressed by following theories: Qualitative Event Realism, Dualism, Representationalism, Higher-Order Theories, Functionalism and Epiphenomenal-ism etc. Now I am going to offer a short description of these theories.

Qualitative Event Realism:

Physical phenomena, according to realism, exists indepently without depending on mental phenomena. The independent existence of physical phenomena is the main theme of realism. An initial feature for realism about experiences can be explained in this way. Suppose that a person sees a red apple. An apples looking red, it involves apples as an object, red colors etc. So looking red apples, ones need a distinctive kind of conscious event – a red experience that is something in its own right. Such experiences may cause by neural events. But it is not identical or reducible from any other material events such as neural events. Experienced are formed by phenomenal qualities. According to Robinson, the main tenant of realism is as follows –'something is happening in after image cases, and that something is very similar to part of what goes on in seeing. 'experiences', and ways in which things look, are more or less –well-established ways of talking about this kind of something'.[8]

According to qualitative event realism (QER), experiences literally are formed by phenomenal qualities. To understand the view that experiences are phenomenal qualities, we can consider the case of bodily sensation. In bodily sensation, a pain is an experience of one kind. An itch is an experience of a different kind. When one asks what kinds of experiences we get, we say that one is a pain and the other is an itch. There are some differences between bodily sensations and experiences associated with the external sense. QER claims that pains are experiences. The quality of being painful is what makes a pain 'a pain'. William S. Robinson opines that QER is the best theory of phenomenal consciousness.[9]

Dualism:

Dualistic theories of consciousness fall within two groups namely substance dualism and property dualism. Substance dualism asserts the independent existence of physical and non-physical entities. Property dualism, on the other hand, explains the physical properties and consciousness as two separate properties instantiated by one and the same reality.

Further, property dualism denies the reducibility of one kind to the other; that of consciousness to physical property or vice versa. Among dualistic theories property dualism has wider acceptance than substance dualism. The major problem faced by substance dualism is to explain how these two entities interact. Descartes says that the interaction between matter and mind takes place in pineal gland.

On the other hand, unlike substance dualism, property dualism regards consciousness as a basic constituent of reality as in the case of matter. The relationship between matter and conscious mental properties is often explained by electromagnetic waves. In Chalmers words, 'In a way, what is going on here with consciousness is analogous to what happened with electromagnetism in the nineteenth century……. to explain electromagnetic phenomena, features such as electromagnetic charge and electromagnetic forces had to be taken as fundamental…… to explain consciousness, the features and laws of physical theory are not enough. For a theory of consciousness, new fundamental features and laws are needed.'[10]

Representationalism:

In philosophical theories of consciousness, Representationalism is a theory that representation plays a central role. We all know that some of our psychological states are conscious or feel a certain way. For example, pain. We feel all our pains in some way. By 'consciousness' contemporary representationalists almost invariable intend phenomenal consciousness where for an episode in the mental life of a subject to be phenomenally conscious (to be an experience) is for there to be something the episode is like for the subject.[11] In such a case, it is said that the feature is among the phenomenal characters of the episode has the feature of phenomenally uncomfortable state. So for an experience of pain being phenomenally conscious have some phenomenal character. We may mention two kinds of representationalism – higher order and first order. According to higher-order representatonalism, 'a mental episode to be a certain way for its subject is just for the episode

to be represented to the subject as being that way: for the subject to undergo some mental episode which is correct as a representation if, and only if, the episode is that way.'[12]Consider a judgement that England wins the 2017-below 17 World Cup Football in 2017. Both are in a sense, aspects of a subject's perspective on the world. On the other hand, first-order representationalism would take something like the following form: A feature may be a phenomenal character only if it is a representational property. [13]Actually these two theories are compatible. Both are claiming that every phenomenal character is a representational property but that not every representational property is a phenomenal character.

Higher-Order Theories:

Higher order theories of consciousness claim to give a naturalistic explanation of the difference between conscious and unconscious occurrences**.** According to such theory, we are conscious of something when we have a thought about it. So a mental state will be conscious if it is accompanied by a thought about that states. The occurrence of such a higher-order thought (HOT) makes us conscious of the mental state. There are two levels of conscious states in Higher Order Theories of consciousness. The first is 'First Order Representational state-(FOR) which is concern with sensation. The second is Higher Order Representational state (HOR) for which the FOR is an object. The mystery of consciousness lies in the twine level functioning of consciousness and can be explained in terms of the HO representation. There are two versions of Higher Order Theories; Higher Order Perception theory (HOP) and Higher Order Thought theory (HOT). HOP treats consciousness as having some perceptual element, where the HOR state perceives the FOR state.

Functionalism:

According to 'functionalist theory of mind', all our mental properties are functional properties. The mental states that make up consciousness can essentially be defined as complex interactions between different functional processes. It does not identify mental

functions with any sort of physical or material state. Functionalism differentiates between a function and their physical state. A house or building is a functional notion. It may be composed of any physical substance such as sand, stone chips, bricks, iron, cement etc. like this, mind or conscious functions, similarly, is a functional notion. When its material side is considered, the contribution is given by neurons. This makes the possibility of realizing the psychic phenomena with the help of different physical constituents other than neurons. This functionalistic account of mind explains conscious functions with the help of physical states other than neural states contributed much to the development of cognitive science. Functionalism views mind as a computer and this prompted the development of artificial intelligence (AI).

Epiphenomenalism:

Epiphenomenalism holds that conscious events-like perceptual experiences, mental images, bodily sensations, emotional feelings etc. do not themselves have effects. \instead, our all behavior causally depends on neural events. Some of these neural events are also causes of our conscious events. The doctrine of epiphenomenalism maintains that physical states cause mental states, but mental states do not cause anything. William James was the first to use the term ‘epiphenomena’ to mean phenomena that lack causal efficacy. Epiphenomenalism state that there is only one-way psychophysical action – from the physical to the mental. Since epiphenomenalism allows such causal action, it can embrace the causal theory of perception. Epiphenomenalism rejects the view that the mind is an un-extended substance while maintaining that mental states and events are nonetheless distinct from physical states and events. Epiphenomenalism claims that we are ever intentional agents. Contemporary epiphenomenalism motivates by the view that ‘every step in the causation of our behavior, from sensory neuron activations to central neuron activations and re-entrant

processes, to motor neuron activations and contractions of muscle cells, can be accounted for by physical principles applied to parts of the physical body.' [14]

Explanatory Gap:

Even though physicalism is able to describe the phenomenon of consciousness to a great extent, it remains inexplicable that how these physical states give rise to the subjective mental phenomena**.** David Chalmers identifies the difference between the hard problem of consciousness (explanatory gap) and easy problems of consciousness. The easy problems are the problems related to cognition. Chalmers gives the psychological explanation of consciousness in contrast to the phenomenological explanation which is the hard problem. He provides a basic argument against materialism as follows:

1. In our world, there are conscious experiences.
2. There is a logically possible world physically identical to ours, in which the positive facts about consciousness in our world do not hold.
3. Therefore facts about consciousness are further facts about our world, over and above the physical facts.
4. Therefore materialism is false. [15]

Subjectivity and Qualia:

Qualia are one of the important features of phenomenal consciousness. Generally some question may be arises in our mind that what is real nature of 'qualia'. What are the kinds of qualia exist? Are all qualia play important role to study consciousness? – etc. When we talk about qualia, we normally assume that there are certain types of mental states; there is 'something it is like to have them'. For example, we seem that there is something it is like to see the pink city of Jaipur, or to experience the pain in the right leg. The term 'qualia' was introduced by C.I. Leiwis in 1929.

The terms *quale* and *qualia* indicate the content of consciousness. They are qualitative, experiential or felt property of mental states. The feelings of pains and itches differ from each other in their 'qualitative character. Some theorist who accepts 'act-object' conception of perceptual experience qualia may include such properties as 'phenomenal redness' and 'phenomenal roundness' of the visual field. But who deny this conception, they do not reject qualia. Qualia are thought of as non-intentional. The notion of qualia goes against the physicalistic theories of consciousness. The famous notion of 'what it is like' best describes the notion of qualia. In his argument against identity theory, Thomas Nagel explains why subjectivity cannot be identified with or reduced to objective physical properties. He gives the example of our understanding of the way the bats navigate. Since we do not have the mechanism for echo-location we have no idea of 'what it is like to be a bat'. Here is Thomas Nagel:

> 'To illustrate the connection between subjectivity and a point of view ------- I assume we all believe that bats have experience. ------- [bat] has very poor vision… I want to know what it is like for a *bat* to be a bat. Yet if I try to imagine this, I am restricted to the resources of my own mind, ------ therefore, to the conclusion that there are facts that do not consist in the truth of propositions expressible in a human language. We can be compelled to recognize the existence of such facts without being able to state or comprehend them.'[16]

A similar approach to the uniqueness of qualia is put forward by Frank Jackson's thought experiment about Mary, the colour scientist. So the experiencing of the phenomenal content of consciousness is something in addition to the physicalistic understanding of that experiencing. In that case the mental content (qualia) must be different from its physical counterpart in some respect. Susan Blackmore explains the plausibility of using the

explanation of blindseer for the separate identity of subjective feeling (qualia). Blackmore writes:

> -'Blindsight looks, at first sight, to be a clincher for theories of consciousness. -----the blindseer has objective vision without subjective consciousness; he is a partial zombie who can see without having the qualia of seeing; this proves that consciousness is an added extra and is separate from the physical functions of vision; it proves that qualia exist and that functionalism and materialism are false.'[17]

Thomas Nagel raised the question, 'what is it like to be a bat?'[18]. Mentioning the 'bats' example, he wants to demonstrate that our subjective and objective experiences are quite different. The objective experiences are related to the processing of information in the brain, but the subjective experiences are entirely our own feeling. It cannot be 'shared' with others. David Chalmers calls such feelings or subjective experiences as 'qualia' which also constitutes the so-called 'hard problem of consciousness.

Some thinkers deploy the 'zombie' hypothesis in order to draw our attention to the special feature of phenomenal consciousness**.** Zombies are logically conceivable creatures having all its physical features similar to normal human beings. The difference between normal human beings and zombies is that the later do not have consciousness or subjective experiences. David. J. Chalmers holds that zombies are physically and functionally similar to normal human beings but lacks experience. He says: 'A zombie is just something physically identical to me, but which has no conscious experience – all is dark inside'. [19]Phenomenal consciousness is also identified with experience. However, there are philosophers and neuro-scientist who deny the existence of phenomenal consciousness. Let us see the positions of the said philosophers.

According to one form of materialism phenomenal consciousness appears to have no function. It is epiphenomenal. It seems to be observation rather than action. Leibniz proposed

that science should be amended because it was in conflict with observation. Some thinkers especially D.C.Dennett holds that phenomenal consciousness does not exist. It is a type of eliminativism. D.C. Dennett (1978) takes the eliminativist position with regard to phenomenal consciousness. To him, every real thing is experiential properties. These properties are actually judgments of properties. These judgments of properties are insubstantial. So qualia can be rejected as non-substantial. In other words, Dennett denies the existence of ineffable, intrinsic, private properties known as qualia.

Like Dennett, many philosophers and neuroscientists believe that the problem of phenomenal consciousness does not exist. They maintain that what we call 'conscious' can only be a property of the functions performed by the brain and body. According to these philosophers only access consciousness exists. But it is a mystery how access consciousness might be experienced if phenomenal consciousness does not exist. David Chalmers (1996) identifies the philosophical problem of phenomenal consciousness as hard problem. The hard problem can be consciously defined as how to explain a state of consciousness in terms of its neurological basis. But the hard problem cannot be solved because whatever the phenomenal consciousness is it cannot be explained by neural correlates.

Further, some eliminativists like P.S.Churchland, D.C. Dennett and G.Rey think that phenomenal consciousness does not exist. Functionalists and physicalists draw a reductionist conclusion with regard to phenomenal consciousness. According to them, there is no mystery so far as the physical basis of consciousness is concerned. Though they admit such a thing as consciousness they do not admit any singular explanatory gap. For them, whatever explanatory gap remains is unremarkable. According to C. McGinn, consciousness is a natural phenomenon but we are bound to be deterred by the problem in understanding the physical basis of consciousness. He tries to show that though the physical properties of our

brain may explain consciousness, yet such understanding is available only to other type of being and closed off to us.

Again, O. Flanagan and J. Searle admit that there may be significant differences between the naturalistic explanation of consciousness and other explanations. But they point out that this does not warrant us to conclude that consciousness is something non-natural or that it cannot be explained in naturalistic terms. Reductionists, in general, do not distinguish phenomenal consciousness from the cognitive, intentional or functional concept of consciousness. They try to show that phenomenal consciousness requires the concept of self and, so, is a form of self-consciousness. Self-consciousness, we have seen, is the possession of the concept of the self as well as the ability to use this concept about one-self. In response to such attempts Ned Block says that such a claim imposes an 'implausible intellectual condition on phenomenal consciousness'. It is possible that phenomenally conscious states involve a non-conceptual content that could be identified as 'experienced as mine'. However, Block points out that this representational aspect does not exhaust the phenomenal properties of that state.

Similar attempts have been made by identifying monitoring consciousness with the phenomenal consciousness. Monitoring consciousness comes in many forms. One of its forms is 'internal scanning'. It is an obvious mistake to conflate internal scanning with phenomenal consciousness. G.Rey points out that it will be silly to consider our laptop computers as conscious because it is capable of internal scanning. He also suggests that internal scanning is sufficient for consciousness, if there is any such thing. From these observations he goes on to conclude that the concept of consciousness is incoherent because it both admits and denies consciousness of laptop computers. In response to such claim Ned Block points out that internal scanning is not sufficient for phenomenal consciousness. This is enough to show that the concept of consciousness is a coherent concept.

From our above discussion we can see that phenomenal consciousness has still remained a puzzle for many philosophers. We can say that phenomenal consciousness is conceptually different from other types of consciousness. Some conscious states are phenomenal because of their phenomenal contents or the phenomenal aspects of the contents. Also we can say that phenomenal consciousness is not a functional notion. If a robot with a computer brain has been conceived which is behaviorally and computationally identical to us then the following fundamental question arises. How can we make difference between what it is like to be us and what it is like to be that robot? We can also ask whether there is anything at all that it is like to be the referred robot. If there is nothing it is like to be that robot then this robot is called a 'Zombie'.

B) **Possibility of the Unity of Phenomenal Consciousness**:

Let us now consider the possibility of the long cherished concept of the unity of phenomenal consciousness by focusing on the unity thesis of consciousness.

Consciousness is the fundamental basis of our daily life. Some even hold unconscious life is not really a life. Consciousness manifests itself in various ways. Though there are two types of explanation of consciousness offered by two sects of thinkers, that is philosophers and neuroscientists. Here we shall dwell on theoretical explanation given by philosophers. Philosophers want to explain the nature, scope and activity of consciousness. Their discussion begins with questions. What is consciousness or what do we mean by the term 'consciousness'? We can say, following William James, that consciousness is multiple objects and a complete manifestation of their relation with each other. Though consciousness is explained by the expression of 'multiple objects' and their relation, yet whether consciousness is divided itself or unified, is not clear from such description. So the aspect of unity or disunity of consciousness is the main issue of our discussion. In the study we have

restricted our discussions on 'phenomenal consciousness and so here the unity means 'unity of experience' or phenomenal consciousness. The main issue of this section is to consider the possibility of the unity of phenomenal consciousness.

In the history of philosophy, we all see that there are two opposite views about the possibility of the unity of consciousness. Some philosophers hold that consciousness has a unity. They claim that human consciousness is unified. This 'unity of consciousness' is often described in three distinct ways -- First, it holds that 'at any particular time, there is a unity to those things I am experiencing now; that is, something are in my consciousness while many others are not.'[20] It is called as the 'contents of consciousness'. Secondly, 'consciousness seems unified over time in that there seems to be continuity from one moment to the next, or even across a whole lifetime of conscious experiences.'[21]Thirdly, these conscious contents are experienced by the same 'me'. In other words, there is a single experience as well as the stream of experiences.[22]For example; Rene Descartes, Gottfried Wilhelm Leibniz, Immanuel Kant, Carveth Reid and Brentano accept the unity of consciousness. Descartes says, - 'when I consider the mind, that is to say, myself inasmuch as I am only a thinking thing. I cannot distinguish in myself any parts, but apprehend myself to be clearly one and entire'.[23] In other words, when I try to express myself as a totality, my consciousness will be necessarily unified. In the same view, Immanual Kant thinks that we get various objects of experience from the external world through sensibility. This experience itself is not knowledge. When our forms of intuition, sensibility and forms of understanding are applied we get knowledge. That is to say, the unity of sensible object depends on some kind of unity, which is called the 'unity of ego'. This unity is the 'transcendental unity of apperception.' In Kantian philosophy, one of the central features of the mind is being unified in consciousness. He thinks that there are two kinds of unity to a single integrated group of experiences. These are[24]1) the experiences must have a single common subject and 2) the consciousness that this

subject has of represented objects and/or representations must be unified. Although Kant himself does not explicitly explain his concept of unified consciousness, yet we find one plausible explanation of his notion from his writings. Andrew Brook has analyzed Kant's notion in the following manner:

> 'The Unity of Consciousness = *df*: (i) a single act of consciousness, which (ii) makes one aware of a number of representations and/or objects of representation in such a way that to be aware of any of this group is also to be aware of at least some others in the group and as a group.'[25]

On the basis of this definition, we can say that consciousness, being unified, is more than just being one state of consciousness. Unified consciousness is not just only singular phenomenon, it is truly unified phenomenon. Kant famously expresses his view on the unity of consciousness in his philosophy of mind. He has done it in two ways: both positively and negatively. In the positive aspect, he says that conceptualized representation has to be unified both at and across time. In the negative aspect, he opines that nothing follows concerning its composition, its identity, mainly its identity across time nor its materiality or immateriality.

For Leibniz, the non-compositeness and the indivisibility of monad renders possible a unified consciousness through aggregation. In Leibniz's philosophy, aggregation of monad is the building block of all reality. Another philosopher Franz Brentano (1874) holds that all conscious states of a person must be unified with each-other in a particular time. In Husserl's philosophy, we see how he wants to provide a unique kind of intentionality that is unlike any kind of reproduction of memory. To give a better account of the temporal structure of experience, he says, 'During the time that a motion is being perceived, a grasping –as-now takes place moment by moment; and in this grasping, the actually present phase of the motion itself becomes constituted. But this now-apprehension is, as it were, the head attached to the

comet's tail of retentions relating to the earlier now-points of the motion'. [26] Recently some contemporary philosophers like David Chalmers and Tim Bayne also think that consciousness must be unified. David Chalmers and Tim Bayne briefly highlight on the unity of consciousness. They mention various types of unity in consciousness. These are objectual unity, spatial unity, subject unity, subsumptive unity, access unity and phenomenal unity. [27]Now I am going to explain in brief all the concepts of unity of consciousness.

The first one is Objectual Unity or Representational unity**.** When two states of consciousness are unified in their object of conscious state or their intentional contents, then we call such unity as Objectual unity or Representational unity. This type of unity happens in an object of subject's conscious states or their intentional content. Representational unities have a multiple structure. Consider the content of consciousness of our perceptual object. This content of consciousness of such perceptual object is integrated in a particular way. This is called as Objectual unity. Such perceptual object is restricted within our consciousness in a particular way and represents an integrated perceptual object. We call such binding as feature binding. This feature binding is possible not only within different modalities each, but also within the same modality. In other words, there is one type of multiple structures within representational unity. These entire features within structure are necessarily unified into object. Even all these objects are necessarily unified in this sense. It is said that representational unity is not only restricted to the contents of perceptual states, but it can be found within conscious thought. A set of thoughts consistent each other, are most representationally unified than inconsistent set of thoughts. Again a set of thoughts which are consistent with each other and also structurally same are more representationally unified than that merely consistent set of thoughts. However, Tye contends that objectual unity is not a necessary feature of phenomenal consciousness.

The second one is spatial unity. Two conscious states are called spatially unified when they represent as the part of same space. When I consider my experience of a book and also of a car, the two objects of experience are entirely different from each other'. But they belong to the part of the same visual field. To say that visual experiences of mine are spatially unified means that my visual experiences spatially represent something within a part of a common space. Spatial unity can obtain at a time or through time. Our all perceptual consciousness is necessarily spatially unified. But some experiences do not admit spatial unity because all of our experiences do not exist in the space. For example: our emotional experience, our thought about philosophy etc. have no spatial content.

The third one is Subject unity**.** All my current experiential contents are unified within my consciousness since they experienced by me. It is applicable to all normal persons. The set of all my conscious states are given a unity within consciousness in that these conscious states are all my own. In this sense, these conscious states are called as subject unified. There are two kinds of subject unity: diachronic unity and synchronic unity. Diachronic unities are found within across the time of subject's experience. Synchronic unity is found within subject at a time.

The fourth one is Subsumptive unity. Two conscious states are subsumptively unified when these two state are subsumed by another single state of consciousness. To take an example: we perceive all of external world through our visual perception. All these experiences come to my consciousness and subsumed by a single encompassing consciousness. More generally, we know it as a single encompassing state of consciousness. If there are subject's any total conscious state, then it can serve as the 'singularity behind the multiplicity'. It is this single state of consciousness in which all of a subject's states of consciousness are subsumed.

Subsumptive unity is different from the gestalt unity. In Gestalt unity two different conscious experiences of two different objects are deeply related with each-other in a way. That is to say, those objects produce a 'gestalt' experience. Subsumptive unity is also different from normative unity. In normative unity, we find some special coherence or consistency among multiple contents of consciousness. Subsumptive unity differs also from neurophysiological unity. In the brain, there are different areas of conscious states. A single conscious state is designated as neurophysiological unity of consciousness. Again, we can distinguish subsumptive unity of consciousness from diachronic unity. Diachronic unity is unity across or over time. According to Oliver Rashbrook, Diachronic unity is that: 'a succession of experiences is not an experience of succession.'[28] The continuity of consciousness is the unitary character of diachronic unity. Consider a subject's experience of an ant moving between two distinct locations – A_1 –A_3 over the interval of time T_1 – T_3. The ant is in location A_1 of T_1, A_2 at T_2 and so on. The movement of the ant from A_1 to A_3 is something that has temporal parts. These temporal parts occur in a particular order in unified way. This is diachronic unity. Obviously, Subsumptive unity differs from such unity.

The fifth one is access unity. We call a mental state access conscious if and only if a subject has a certain sort of access to the content of that state. We enjoy different types of experience in our daily life. We perceive many things, hear many things, receive verbal reports and engage in rational inference and deliberation and control our behavior. We call such experiences as instances of access consciousness. Consider that I see a red book. I can report about the presence of it. I can also explain through my reasoning that this book is the book which I read yesterday and so need not read it again. In that case I control my behavior. I can use all these information that I gather through visual perception. Hence, states of consciousness involved in those perceptual experiences are viewed as access conscious states. Access conscious state is related to corresponding notion of access unity. T. Bayne and D.

Chalmers write: 'A mental state is *access conscious* when a subject has a certain sort of access to the content of the state.'[29] In the above mentioned example, all received information about the book through visual perception come to us via access unified state. This unity is identified as access unity.

Finally, we come to phenomenal unity. We can say that a mental state is phenomenally conscious, when there is something it is like to be in that state. Phenomenal consciousness is a kind of consciousness. When a person or creature feels what it is like to be that person or creature, it is said to be an instance of phenomenal consciousness. According to Nagel, 'Phenomenal consciousness is the kind of consciousness that a creature enjoys when there is 'something that it is like' for that creature to be the creature that it is'.[30] Phenomenal consciousness is an experience which I get as what it is like. My experience is only my experience. His experience is his own experience which I do not share, nor does he share mine. I am walking in a beautiful garden. I see various beautiful flowers. I am enjoying all these through my visual perception. At the same time, different colorful birds are flying in this garden. They are singing in various tones. I am enjoying both – seeing the beautiful flowers and hearing the songs of colorful birds simultaneously. Now it may be that both the experiences of beautiful flower and songs of birds give rise to an experience which is representationally unified. But those two experiences together come to me bearing a conjoint experiential character. I may not be able to describe such total state of consciousness verbally. It seems to me that whenever I try to describe it, it is not complete. Generally, it is not possible to explain such experience fully. This entire unity of experience or co-consciousness is called phenomenal unity. Phenomenal unity belongs in all natural cases of phenomenal consciousness. It is actually a property of experiences or phenomenal conscious states.

However, a creature may be conscious in a particular way. Tim Bayne calls such states as specific conscious states. These specific conscious states are different from each-other on the basis of phenomenal character or content of these specific states. In other words, a subject's consciousness is related with the subject's different experiential states. Incidentally, we find in this context two different views: one is the conservative view, another is the Liberal view.

Conservative philosophers maintain that all our phenomenally conscious states generally differ from our other conscious states. For example, our bodily sensation, perceptual experience etc are all phenomenally conscious but 'thought' will never be 'phenomenally conscious'. Sometimes, it seems that some phenomenally conscious states like inner speech and visualization of various kinds, etc are treated as conscious thought, but "thought" itself is not phenomenally conscious. This conservative view of the reach of phenomenal consciousness obviously differs from the Liberal view. Liberals hold that conscious thoughts possess a 'what it is likeness' like our perceptual states and bodily sensations. They insist that it is simply a mistake to restrict the domain of the phenomenal to sensory or perceptual states. However the sensory states are the most important instances of phenomenal consciousness.

Following Tim Bayne, we can mention the two views related to the unity of consciousness; one is Liberal, another is conservative. According to the Liberal view, we can give a unique account of the said unity that coheres with the accounts of perceptually conscious states and other phenomenal states. On the contrary, the conservative view explains the unity of consciousness in two different ways, i.e. from the perspective of phenomenally conscious states and that of non- phenomenally conscious states. They do not accept any unique account about both the states. They also hold that the form of conscious state is not

category. Yet conservatives are likely to need a third account of the unity of consciousness in order to accommodate these two accounts.

Susan Greenfield, a famous pharmacologist and researcher of neuroscience, explains the unity of consciousness in this way: -'consciousness is spatially multiple, yet effectively single at any one point in time. It is an emergent property of non-specialized groups of neurons that are continually variable with respect to its epicentre.'[31]She explains the unity of consciousness on the basis of three fundamental properties of consciousness. The first property is that it is spatially multiple but temporally unitary. In other words, we spatially perceive the multiplicity of outside world. But we are normally conscious of any one state at a time. Secondly, consciousness is a continuum and continuously variable, right from the adult stage of an individual. Thirdly, consciousness has an 'epicentre' on which it is found. Another famous neuroscientist Gerald Edelman claims that all our conscious experiences are subjective. It must be in first-person perspective. These two fundamental aspects of conscious experience are private-ness and unity. This private nature of conscious experience is 'closely coupled' with its unity. He also considers those perceptual events, coherence and capacity limitation as intimately tied with each other.[32] On the other-hand, British philosopher David Hume, Thomas Nagel (1971), Donald Davidson(1982), D. C. Dennett, Gerard O. Brien and Jon Opie (1998) and David Rosenthal have argued that the mind's unity has been greatly overstated. They point out that it may be that there are real unities of some kinds in the parts which do not enter consciousness. But our all conscious states and acts do not cohere with each-other. They claim that fewer of our conscious states may be unified, or our whole consciousness is less unified than we think. Thus all of our conscious states may never be unified with each other. For example, let us consider John Locke and David Hume's view. They 'understand the philosophical problem of motion perception as a special case of a more general concern. This more general concern focuses on the origin of our ideas of time, and

especially our ides of succession and duration. They opine that 'we never have a direct impression or experience as of one event succeeding another, nor do we ever perceive directly any duration of time that elapses between the occurrence of two events or over the course of a single event.'[33]Thus Locke claims that we have no perception of Duration. They obviously think that we have no intuitive faculty by means of which to experience the passage of time. Hume also put forward the *bundle theory of self,* according to which self is a continuum of mental images. According to him, feeling of a persisting self is only an illusion. What really exists is a continuum of the elements of experience, which *seems* to belong to a single self. Such a theory which demands a continuum without a unifying principle is hard to accept since there is no element that can account for the continuum. A different view is found in Kant's philosophy. Kant claims that by the 'unity of consciousness' we mean both the unity of consciousness and the unity of apperception. By 'unity of consciousness' Kant says, - 'I am the subject not just of single states of awareness, but of a great many states of awareness in a single representations.'[34]The same is true about actions, - 'one and the same subject is the agent not just of single actions but of a great many actions, ……..'[35]In the case of synchronic unity, many global representations display temporal unity in the following way: our current representation is combined with retained earlier representations. Temporal unity is an important feature of synthesis of recognition. We acquire many representations from the series of temporal steps – e.g. hearing a sentence, perceiving a beautiful scenario etc. All these representation will have unity across time. Susan Blackmore explains;

> 'Bundle theory is extraordinarily difficult to understand or to accept. It means completely throwing out any idea that you are an entity who has consciousness and free will, or who lives the life of this particular body. Instead, you have to accept that the word 'self', useful as it is refers to nothing that is real or persisting; it is just an idea or a word. And as for the self who has experiences, this sort of self is just a

fleeting impression that arises along with each experience and fades away again. The illusion of continuity occurs because each temporary self comes along with memories that give an impression of continuity.'[36]

It is clear that the idea of self is indispensable for any study of consciousness. But William James defines the Specious Present clearly as 'the short duration of which we are immediately and incessantly sensible'. Like James, Tim Bayne mentions a possible problem concerning the issue of the temporal structure of consciousness. He states that the thesis of unity may assert that subject's simultaneous conscious states will be phenomenally unified with each-other. In other words, full unity will be revealed into instantaneous snapshots of any subject's experiences. Some objection may be raised against of this claim that how we accept the snapshots of stream of consciousness, how it is possible to say that we can apply static structure to that which is fundamentally dynamic and temporally extended? Bayne himself thinks that such objection is not so much important because we can 'take a slice' of the stream of consciousness for our study though consciousness is temporally extended. Bayne identifies two aspects of the structure of temporal consciousness. First, conscious events are located in objective time. Indeed, when some conscious event happens, then we ask about when that particular event occurred. This Bayne's terms as the temporal structure of the vehicle of consciousness. Secondly, conscious events also represent events as occurring at particular time. Bayne identifies it as temporal structure of the contents of consciousness. Dennett and Kinsbourne opine that, temporal relations between the vehicles of conscious events may dissociate from the temporal relations between their contents. In the context of conscious thought such dissociation may be manifested. The temporal content of a thought may dissociate from the temporal location of the thought itself. Similarly, in perceptual experience, the difference between vehicle and content is also very important. Consider the example of two perceptual events like E_1 and E_2. E_1 may happen before

E_2though the intentional object of E_2 represents otherwise. Bayne points out that there is no a priori requirement that the brain use space to represent space. The same is true in the case of 'time'. So the question arises that whether unity thesis should be understood in terms of temporal structure of its content or in terms of the temporal structure of the vehicles of consciousness.

Bayne shows that the motivation behind the unity thesis cannot be appreciated by an appeal to the contents of consciousness. Conscious events occurring at different points of time may have identical content. Yet the conscious events occurring at different points of time are not phenomenally unified with each other. Thus, the self-same content may be found in several cases of conscious events and these states may or may not occur within the same temporally extended stream of consciousness. Yet, it is clear that there is no single phenomenal state that subsumes them. Hence, Bayne contends that the temporal framework in question is that of clock-time.[37] D.C.Dennett is also skeptical about the traditional unity of consciousness. He says: 'what is it like to be an ant colony? Nothing, I submit ……what is it like to be a brace of oxen? Nothing.'[38]Why is the answer nothing? In such cases, -'there is no functional unity …..no unity to distinguish an 'I' from a 'we'.'[39] Barry Dainton, in his book *Stream of Consciousness*, argues for the opposite view. He says: 'The unity we find in our stream of consciousness, both at and over time, consists in the simple fact that our experience divides into parts and these parts are co-conscious. Since a given stretch of experience can be divided into parts in any number of different ways, and whatever parts are discerned can themselves be regarded as wholes consisting of further parts, the unifying relationship of co-consciousness is all-pervasive, at least within the confines of the phenomenal present. No matter how a total experience is divided into parts, every part is connected to every other part by co-consciousness. A typical stream of experience thus exhibits a deep and far-reaching unity; and in so far as consciousness has characteristic features, this mode of unity is as

distinctive, and remarkable as any.'[40]According to Gerard O'Brien and Jon Opie, though some philosopher and cognitive scientists, 'a subject's phenomenal consciousness, at any one moment in time, is a single thing'[41] but this orthodox view is quite wrong. They opine that phenomenal experience is not a unity, in the sense of being a single thing at each instant. It is a multiplicity, an aggregate of phenomenal elements, each of which is the product of a distinct consciousness-making mechanism in the brain. Therefore, cognitive science is in need of a multi-track theory of consciousness. In support of their view, O'Brien and Opie mention Bernard J. Baars view where he (Baars) tells that 'even two simultaneous conscious events are experienced either fused into a single experience or serially, one after the other. There is no such thing as true psychological simultaneity of two distinct events'.[42]O'Brien and Jon Opie think that there is an obvious inconsistency here, as the first statement appears to be committed to what the second denies, i.e., the simultaneity of distinct conscious events. They can read this as a claim about simultaneous *contents*; namely, that different contentful element can be fused into one *experience,* and hence while the experience remains 'single', its contents are multiple. They maintain that there are actually two distinct ways of conceiving the unity of consciousness: as a serial stream containing only one contentful element at a time and as a single experience embracing multiple contents. The first is monophonic (i.e., it contains only one note at a time) and another is polyphonic (e.g., from a number of modalities). In their view, the orthodox conception of the target phenomenon, in either its monophonic or polyphonic guise is quite wrong. Phenomenal consciousness is not a unity; rather, it is manifold and distributed. Bayne replies to this objection with the help of Inter-modal integration account. Inter-modal integration suggests that the stream of perceptual experience is best thought of as highly braided rather than as composed of sense – specific tributaries that generate experience in splendid isolation from each-other. It also functions as highly interdependent channels. In a word, Inter-sensory integration suggests

that whatever atoms of consciousness there might be are unlikely to take the form of modality – specific chunks.

Roger Penrose appears to be an adherent of the monophonic model. He writes:

> 'Utterances like 'How can you expect me to think of more than one thing at a time?' are commonplace. Is it possible *at all* to keep separate things going on in one's consciousness simultaneously? Perhaps one *can* keep a few things going on at once, but this seems to be more like continual flitting backwards and forwards between the various topics than actually thinking about them simultaneously, consciously, and independently. If one were to think consciously about two things quite independently it would be more like having two *separate consciousness* ……..while what seems to be experienced ….is a *single* consciousness which may be vaguely aware of a number of things, but which is concentrated at any time on only one particular thing.'[43]

Thus, according to Penrose, consciousness is 'single', because we can't hold two independent thoughts at once. Doing so would be like having two consciousness in the one head. At any moment in time consciousness involves only one "thing", or one 'topic'. Here Penrose identifies an important relationship between consciousness and higher-thought with its phenomenal concomitants. But our consciousness is not monophonic or single-voiced. It is a complex amalgam of many contents, which, for the most part, are so constant that it's easy to take them for granted. On the other hand, many theorists, like Paul Churchland, prefer to adopt a polyphonic model of the unity of consciousness, in which many 'voices' can sound their notes simultaneously. Paul Churchland's enumeration of the "salient dimensions of human consciousness" is as follows:

> ‘Consciousness harbors the contents of the several basic sensory modalities within a *single unified experience*. A conscious individual appears to have not several distinct consciousnesses, one for each of the external senses, but rather a single consciousness to which each of the external senses contributes a thoroughly integrated part.’[44]

O’Brien and Opie have described as the polyphonic conception of the unity of consciousness, because Churchland grants that each of the external senses contributes a part, so rendering it ‘polymodal’ in character. They claim that, the phenomenological and neuroscientific evidence suggests that human consciousness is not a unity, but manifold and distributed. It is manifold because our instantaneous experience is a very complex aggregate state composed of a large number of distinct and separable phenomena or elements. It is distributed because there are multiple sites of consciousness-making scattered throughout the brain. Human consciousness is neither monophonic, nor polyphonic. They accept the multiplicity of consciousness, its disunity. They also think that we no longer need to search for an executive computational device in the brain that broadcasts in either monophonic or polyphonic mode. But they argued that they need a multi-track polyphonic model of consciousness that acknowledges both the manifold nature of experience, and its distributed neural basis. Philosopher S. Zeki also thinks that human consciousness is also disunified in nature. His conclusion is that ‘Micro-and macro-consciousness, with their individual temporal hierarchies, lead to the final, unified consciousness, that of myself as the perceiving person. This and this alone qualifies as the unified consciousness, and this alone can be described in the singular’. [45]

Rosenthal, one of the leading thinkers of the field, describes that, ‘we all generally think that we have a ‘sense of the unity of consciousness’.’ But he asks ‘why do we have

such a sense?' He argues, 'Mental states are conscious when they are, in virtue of their being accompanied by HOT (higher-order–thoughts) and each HOT represents its targets as belonging to the individual who also thinks the HOT in question'.[46]Across a range of such self-ascriptions, one develops a sense of being their common subject. However, this sense could be wrong. Rosenthal claims that the experiences thus ascribed could be supported by or located in a diversity of subjects. It is because of this, he asserts that all we have is a sense of consciousness being unified. According to Michel Tye, if we admit the existence of phenomenal unity, some problem may arise. Consider an example: I see some children's playing in the playground. I also see flowers, and two birds sitting on the tree. All of these experiences are my perceptual experience. Listening to a nearby bird singing, I am hearing beautiful songs etc. all these experience are auditory experiences. Thus I am using many of my sense organs at a given time. Each of these experiences has distinct sense-specific phenomenal character. This generates one kind of problem of the unity of conscious experience. How all these different types of experiences are phenomenologically unified? In what does this unity consist as I am subject to two different token experiences – one visual and one auditory?

Further, if there really is something it is like to undergo all the sense specific experiences together at the same time-if there really is a phenomenological unity – then there must be an encompassing experience, one that includes the other experiences within itself. That experience is the bearer of the total unified phenomenology. Again experiences bundle together to form overarching experiences is a view that has counterparts of course within each sense. For there, phenomenal unity is not just across senses but within them too. Thus the problem of the unity of conscious experiences, as it applies to the cases of simultaneous perceptual experiences, is first and foremost to give an account of the nature of the unifying experiences in relations to the other experiences.

Conclusion:

In the conclusion we can say that the concept of phenomenal unity is one of the main bases of the discussion of stream of consciousness or the field of consciousness. Indeed, two experiences within a single phenomenal field possess a conjoint phenomenality. In this case, though we get something 'what it is like' experience they are not only two separated experiences; they also together form 'an experience'. Phenomenal unity is a puzzling nature of consciousness, yet, the multiplicity of object and their relations that we experience at any point in time in our daily life are not separated from each other- they are explained as components of our state of consciousness. I think that keeping aside all the debates there is an internal connection between the different states of consciousness. In that sense, there must be a unity of consciousness. It may be designated as the unity of phenomenal consciousness.

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