Explaining the Problem of Phenomenal Consciousness

A Dissertation submitted to the University of Hyderabad in Partial Fulfilment of the Requirement for the Award of the Degree of

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SUBMITTED BY

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CERTIFICATE

This is to certify that the dissertation titled **"Explaining the Problem of Phenomenal Consciousness"** submitted by **Shipra Shukla**, bearing the Regn No. 20HPHL01, in partial fulfilment of the requirements for the degree of Master of Philosophy in Philosophy, is a bonafide work carried out by her under my supervision and guidance.

This dissertation has not been submitted previously in part or full to this University or any other Institution for the award of any degree or diploma.

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DECLARATION

I, Shipra Shukla, hereby declare that this dissertation titled "**Explaining the Problem of Phenomenal Consciousness**" carried out by me under the supervision of Prof. C. A. Tomy, Department of Philosophy, University of Hyderabad, is an authentic piece of research work and I declare that to the best of my knowledge that no part of this dissertation was earlier submitted for the award of any degree, diploma, fellowship or any other similar title of recognition to any university or institute.

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1. Introduction

Mind is a topic that has intrigued philosophers for ages now. How something physical like brain can give rise to the experiences we feel or visions we see or dreams we dream etc. is a question which constitutes a major query in philosophy of mind, which David Chalmers calls the hard problem of mind. The contemporary face of the problem of mind can be traced back to Descartes' distinction between, mind- the immaterial substance and body- the material substance. Since then, philosophers have been trying to solve the nature of interaction between mind and body, which has given rise to the connotative phrase 'mind body problem'.

1.1 Consciousness

Consciousness has been one of the main bones of contention in the debate on the mind body problem. To define consciousness is a task which is elusive. There are so many ways to look at consciousness that when one talks of consciousness it becomes one's imperative to tell which sense of consciousness is being talked about. The various senses of the word 'consciousness' can be broadly divided into three categories, namely, Creature consciousness- when we talk in the sense of creature being conscious. Creature consciousness can either be understood in terms of sentience, i.e., the creature is able to sense its surroundings and responding accordingly (One can talk of degree of consciousness where it is possible that one organism is less or more conscious than the other in terms of how alert and responsive it is to the surrounding.), wakefulness or self-consciousness, etc. Second category is State consciousness- when we talk of mental states being conscious. The third category is consciousness as an entity itself- It talks of consciousness in the sense of what constitutes consciousness. For example, in one sense it is considered that consciousness is abstracted from a neurological or functional feature which has no separate

existence. This view can be considered in realist as well as idealist way. If taken in realistic sense then it is like electromagnetic field which is caused by charge on atom but is as real as the atom. An idealist's position would be similar to a vitalist position on life being nothing over and above living organisms, as consciousness is nothing over and above its functional aspect.

The categories beg for a distinction between 'conscious' and 'unconscious' in their respective senses. If we talk about conscious being then how is it different from unconscious being or when we talk of conscious state then how is it different from unconscious state.

1.1.1 State Consciousness

My concern in the study would be to deal with state consciousness. As stated above, State Consciousness deals with the mental states. Mental states can be phenomenal, representational, states with meta-intentionality (mental states that are about other mental states) etc based on the mechanism involved or the kind of content it has. Representational state will have representational content which is intentional, qualitative state will have qualia as its content, and so on. There are other senses of state consciousness too, for example, phenomenal states, access consciousness (Ned Block, 1995), narrative consciousness (Dennett 1991, 1992) or What-it-is-like states (Nagel, 1974). These notions mostly overlap each other and distinctions are very fine. As the different senses of state consciousness overlap in their use I divide them into two main distinctions, namely, phenomenal and functional. I will be approaching the topic with the meaning of consciousness which deals with phenomenal consciousness as well as access consciousness which is functional.

1.2. Why is there a problem in explaining consciousness?

The problem in explaining consciousness mainly arises because of two reasons, namely, the nature of consciousness and explanation.

1.2.1 Nature of consciousness

Phenomenal consciousness- The distinction between phenomenal and access consciousness was highlighted by Ned Block in his paper "On a confusion about a function of consciousness". Phenomenal consciousness is the consciousness of experience that we have in the first person perspective. The account of what it is like to have that experience can be given by the person alone who goes through that experience and yet this first person perspectival knowledge of 'what-it-is-like' cannot transferred to any other person or machine. This qualitative aspect is sometimes called qualia. Qualia are the properties of experience which is subjective. The experience of a person eating an orange has quale of taste, color, smell etc which constitutes what-it-is-like for that person to eat orange and it can, in no way, be transferred to other person. In this way, phenomenal consciousness is considered subjective. It is what is left when everything functional and perceptual is stripped off from the perceptual data of experience and the residue is consciousness of the 'raw feel' of the experience, subjective to the person. This subjectivity of the perceptual conscious state is supposed to keep the mental state separate from the causal network of mind as the mental state cannot be accessed by the other functional mental states.

Access consciousness- When discussing consciousness, Functionalism has upheld strong views about consciousness having a functional role. Functional role is understood in causal terms. Philosophers, advocating that the nature of consciousness has functional aspect, claim that

conscious states interact with other conscious mental states, manipulate them, are accessible by them, and have a function in the causal picture of mental world. Access consciousness, as the name suggests, constitutes of accessible mental states which have functional roles. Ned block explains access conscious state as, “A state is access-conscious if, in virtue of one’s having the state, a representation of its content is (1) inferentially promiscuous (stitch 1978), that is, poised for use as a premise in reasoning, (2) poised for rational control of action, and (3) poised for rational control of speech”. This definition situates access consciousness in the center of the functional mechanism of mind which deals with input mental states and their respective outcome as speech, action and/or another mental state. Hence, a purpose is involved in the concept of consciousness here. The states, by the virtue of being accessible, do not have subjective content (subjective in the sense of privacy of content).

Having made the distinction clear, the question arises; how does state consciousness in the sense of access conscious states account for the phenomenal aspect of experience. Do they have to be entirely separate? Another question is, if consciousness is taken in phenomenal sense then what purpose is rendered to consciousness? Some philosophers claim that access consciousness itself takes care of the phenomenal aspect of experience in the sense that there is no phenomenal aspect or qualia per se, just the functional aspect of consciousness (Dennett 1988). Others just reduce either phenomenal consciousness to access consciousness or separate access states from the concept of consciousness altogether. Can this kind of reduction be accepted?

The difficulty in explaining consciousness is apparent here that the nature of consciousness as phenomenal and access conscious states, it seems, cannot be put together to have a complete understanding of consciousness. The intuition I am going to follow is to take these questions

further and explore if there is a possibility that phenomenal and access consciousness is inseparable.

1.2.2 Explanation for Consciousness

Explanatory gap- The neurobiological demonstration of pain would be C-fiber firing in the brain. But how this physical phenomenon of the brain gives rise to what we feel when we are in pain forms part of the problem called the explanatory gap. The present explanatory models cannot capture the 'intelligible link' between the physical and the psychological, as mentioned above. This is one form of explanatory gap, the stronger is what McGinn has claimed that we are cognitively closed to understanding of such a link and hence can never know why and how physical properties give rise to phenomenal properties. So this Explanatory gap is one of the reasons of difficulty in explaining consciousness.

Subjectivity- The explanatory power of an explanation of consciousness is affected and moreover hindered by the fact that we are dealing with something that is subjective in nature. The phenomenal consciousness is purported to be subjective and thus a person experiencing eating an orange can't deliver this experience to anyone else by any means. To explore whether any explanation model can accommodate subjectivity of phenomenal consciousness one has to look if an explanation can accommodate a subjective concept, which means to explore the ontology of subjective concepts and how they can be talked about at all given the non-shareablity of subjective concepts.

The nature of consciousness as well as the explanation, are two difficult and confusing problems independently. When taken together these make explaining consciousness yet more difficult and complex.

1.3. What should a required theory of explanation encompass?

As the nature of mental events is so different from physical events, one has to rethink concepts like causation, function, explanation in the new light of the mental world. Setting an explanandum out of the various problems is the first task. Second is to check for framework which suits to be a set from where explanans are derived and finally the kind of relation that is asserted between explanans and explanandum (Gulick 1995).

1.4. Structure of the thesis

In this work I will begin with stating and proving that phenomenal consciousness exists, as opposed to the claims of functionalists. Then I will establish what are the features of phenomenal consciousness or qualia. I will be using both the terms inter-changeably. Even if the phenomenal features of experience are granted, they are reduced to access consciousness or some form of functional state. In the second chapter I prove that the reduction of phenomenal consciousness to any functional state is not possible. Further that there is no relevance in coining the word access conscious state for any mental states of mind. Finally, I talk about if there is possibility of an explanation of phenomenal consciousness. Here I discuss about the issue of subjectivity of phenomenal consciousness and how it can be accommodated in an explanation.

I hope the research work would bring clarity to the nature of consciousness in terms of it being both phenomenal and functional, which, further will provide a new structure of consciousness. By structure of consciousness, it is meant that how consciousness figures in the whole causal structure of mind which in turn suggest a model of explanation for the same.

2. Phenomenal Consciousness Exists

One of the most used and precise descriptions of phenomenal consciousness was given by Nagel when he gave the phrase what-it-is-like (Nagel, 1975). He asks us to imagine what it is like to be a bat. Bat has a different perceptual apparatus than we have. We know many objective facts about bats and their living. We know that bats navigate in the world through sonar. Their perception constitutes of echolocation, they are sensitive to high-frequency sound waves, and they have sense perception to catch the reflection of those waves. One can reason and explain how a particular bat deflected from its path when faced with physical obstruction. Despite knowing all these facts, we do not and cannot know "what it is like to be a bat" (Nagel, 1974). The experiences of a bat are subjective to the bat which cannot be shared with us no matter how sophisticated a system we invent for doing it.

Similarly, the phenomenal consciousness is subjective. No matter what advances science makes, it can never be transferred to another person as it is. This notion of phenomenal consciousness resonates with the idea many philosophers have of phenomenal consciousness.

Daniel C. Dennett is one of the many philosophers of mind who don't grant any ontological status to phenomenal consciousness, or even if they do, they see it reducible to some functional or physical state. In this chapter, I argue against Dennett's claim that there are no qualia. Once I establish that with the help of Quine's perceptual similarity, I will formulate what qualia are. I will be using qualia and phenomenal consciousness interchangeably.

2.1 Dennett's Conception of Qualia:

Dennett has tried to catch the meaning of the word qualia in various ways through what he calls intuition pumps. These intuition pumps are like thought experiments, but they are designed to provoke a strong intuition that makes us believe it as a fact. His justification for using intuition pumps to disprove qualia rather than rigorous arguments is that rigorous arguments are meant for well-defined objects or phenomena. For something like qualia, about which nothing can be said, intuition pumps are the right tool to deal with something which is itself a strong intuition.

According to Dennett, qualia are:

Ineffable- It is not possible to speak about qualia because it is a subjective notion.

Intrinsic- Qualia is inbuilt into our minds right from birth.

Private- It cannot be shared or transferred to any other person. It is private for the self.

Directly apprehensible- it is the first and immediate apprehension of experience. (Dennett, 1995)

And even if these properties can be denied, Dennett says that qualia are the phenomenal aspect of the experience at least. He borrows Shoemaker's notion of qualia: "the qualitative or phenomenal features of sense experience[s], in virtue of having which they resemble each other and differ from each other, qualitatively, in the ways they do" (Shoemaker, 1982, p.367).

There are intuition pumps that bring out the strength of this thought. Even if everything perceptual, functional, and physical is removed from a sense experience, there is a residue. There is something to undergo that experience that cannot be accounted for by any functional or physical system.

2.2 Against Dennett

Dennett agrees that there is conscious experience, and like any real thing, conscious experience has properties. What he is not willing to accept is that these properties are special in any way. What does he mean by special, he explains through intuition pumps in the rest of his paper. What he wants to prove is that there is nothing like qualia if qualia are the phenomenal character of experience that is ineffable, intrinsic, private, and immediately perceptible. He provides intuition pumps in place of argument, justifying the act by saying that rigorous arguments work on only well-defined material. Although how intuition pumps are going to prove or disprove anything is a big question. His main line of the argument lies around the claim that people are mistaken about their own qualia. He says if qualia are subjective, then they should be accessible to the subject, but through various thought experiments, he shows how this is not the case. The whole question arises from a misunderstanding of the term phenomenal and the characterization of this phenomenal character of experience. To begin the discussion, for now, let us take the phenomenal character to mean what Nagel meant by it. There is something it is like to be in a mental state of experiencing an event. Let us not assume for now that it is private or ineffable, or intrinsic. In the spectrum inversion thought experiment and its variants, Dennett shows, in both inter-personal and intrapersonal spectrum conversion cases, we cannot put a finger on what shifted to give different qualia and how it shifted. Was the shift through an optic nerve or in the memory-access links? How do we verify anything about qualia? And if it is not verifiable, it is as good as fiction. We cannot verify anything about qualia because the sole authority on qualia, i.e., the subject herself, does not know about her qualia. Examples of two coffee tasters, Chase and Sanborn, prove that although they both acknowledge that they don't like

maxwell coffee anymore, chase says the reason is that his taste has enhanced. Whereas Sanborn believes there is something wrong with his perceptual apparatus. And then, if they are to be taken for their words, the qualia statements become empty, like – I know how tall I am. It is neither wrong nor right. It is vacuous and meaningless. There is no content in qualia statements then. "Properties in one's experience one cannot in principle misdiscover" (Dennett, 1995).

Dennett discusses two cases of coffee tasters not because he wants to make a point on interpersonal qualia shift but because it is easy to show elucidate intrapersonal shift taking two different cases. One of them is Chase. For six years, Chase has been a coffee taster. For Chase, the maxwell coffee was the best-tasting coffee. Chase compares coffee samples every day to have consistency in the taste. Yesterday he had T1 qualia of tasting coffee. Today he had T2 qualia. According to Dennett, for the consistency of the coffee, T1 must be the same as T2. There are a few things worth noting in Chase's case.

i) There is a knowledge of the consistency of the coffee.

ii) There is a reactive attitude towards the taste.

iii) Finally, there are the qualia of tasting coffee.

Coffee tastes the same to chase. But that does not say anything about the qualia of tasting the coffee being the same every time. Qualia of an experience repeated many times is not the same. It's not a switch that turns on whenever Maxwell coffee is experienced. Qualia is what it is like to experience coffee. Later if it becomes a memory unit and data from similar experiences is used to compare it, which leads to confusion of the given kind, it does not prove that there are no qualia.

Another problem Dennett has is the verifiability of the qualia statements. Even if chase claims that his qualia of tasting the coffee are the same, but his taste has enhanced, are we to take it as the case? Dennett says it renders qualia statements meaningless. There is no way of verification of statements about subjective experience apart from the subject's testimony. Given how qualia are defined, no comparison of qualia is possible, even with perfect technology. Hence there is no way to verify qualia. What Dennett has a problem with is not qualia itself but how to verify anything about qualia. The nature of qualia is such that it does not leave any scope for explanation and verifiability. This illusion is created because qualia are taken as a bundled package of whatever can be incorporated into 'what it is like.'

Verification method for a subjective concept

When Chase says Maxwell coffee tastes good, I can imagine the taste of good coffee. My qualia of good coffee are not the same as Chase's qualia of good coffee, but still, we are able to talk about it. I have an idea of what a good coffee can more or less taste like to Chase. What gives me this idea? What gives me any idea of any qualia of anyone other than me? How am I able to operate in a world where according to the concept of qualia, I was supposed to be locked in my head?

We have to agree at least to the proposition that we have an idea about other people's qualia. I know what it is like for a person to see red. The next question is, what gives rise to this idea that qualia are subjective? Either there are no qualia, as Dennett claims, or qualia are not subjective in the sense of it being private and ineffable. For the first possibility, let us look at what arguments Dennett presents.

There are two major arguments he presents against qualia.

i) How can one be sure of their own qualia and shift in qualia?

ii) What is the way to verify statements about qualia in order to make them meaningful sentences?

What is exactly this 'shift in qualia'? If I drink coffee in the morning and have a qualia T1 and suppose, due to some reason, I have a changed qualia of drinking coffee with the same proportions and preparation, say T2. What possible scenarios can there be of the shift in qualia-

i) I am continuously having a qualia T1 of an event E, assuming there is no change in the event. Then one day, I have qualia T2 for the same event, E. How do I know that my qualia have shifted from T1 to T2? One way is that the reactive attitude towards T1 has changed. For example, I no more like what I used to like. But a change in reactive attitude can take place irrespective of any change in qualia or the event. So it cannot be a marker of a shift in qualia.

ii) Next, there is a possibility that I still find the coffee tasty. But there was something it was like to taste coffee T1; now there is something different in what it is like to taste coffee, which gives rise to T2. This shift seems unnatural. But consider due to some biological changes, you find your coffee more bitter. Event E hasn't changed. But other factors like biology cause this shift from T1 to T2. And I express that 'the coffee tastes more bitter to me today.' How does this raise a question on the reality of my qualia? Should having qualia of drinking coffee be the same always? Is it a presupposition in Dennett's conception of qualia?

iii) Now suppose I drink beer for the first time and have qualia T1, and I do not like the taste. After trying it for few times, I start liking the taste. Do I like the qualia of the first sip of beer, or do I dislike the qualia of the beer I drink now? None. A reactive attitude has nothing to do with qualia. You can have different reactive attitudes at different times for the same qualia, as discussed. For better clarity of the situation, let's take the example of drinking orange juice first thing in the morning and again after meals. I drink orange juice first thing in the morning, and I find it sour. Then I eat something and drink orange juice again and find it less sour. If this presents any problem to somebody trying to conceptualize qualia, then probably the conceptualizing has some problem. Qualia is not a type but a token. Every experience can have distinct qualia. And qualia of orange juice in the morning can differ from orange juice in the evening.

iv) What role does memory play in the game of qualia? One significant point that Dennett raised through his intuition pumps was we leave out many factors like memory and see qualia in isolation. Should qualia be taken in isolation? Suppose I have a qualia T1 of eating an orange. This is later used by other modules of the mind for their respective functions and stored in memory. Again, it is a token T1. Whatever shifts in perception to give me a shift in qualia from T1 to T2 does not bring into question the reality of either T1 or T2.

Now the question is, how can one be sure of the shift in qualia? There are factors that affect our qualia, and they are in the number of hundreds for any experience that we have. What causes qualia to be T1 is not the question here. Whatever be the cause, I can be sure of my qualia T1. Whatever be the reason for the shift, I can again be sure of my qualia T2. And thus, I can be sure

that my qualia shifted from T1 to T2. Although we say it has shifted in the linguistic sense of putting across the idea that there are different qualia for the same event, E. In reality, there is no shift. There is qualia T1, and there is qualia T2, and both are real. Whether T1 happened because of x and it changed to T2 for an event E because of nerve damage or any other phenomena, the truth about T1 or T2 does not change.

The comparison of T1 in memory to T2 happening at present can be made, but T1 was for event E at time t1, and T2 is a different token at time t2. So, if there seems to be a change, then there is a change. It can be an illusion, as in hallucinations, but it is real to me.

This brings us to the next question: qualia, explained in this way, sounds like fiction. Qualia are not real. It is as real as the harry potter world concocted at the command of our imagination. If it is real, how do we verify its reality? The reality of the world is verified by objective accounts of its phenomena. There has to be a way of testing the hypothesis. I say I am having qualia of seeing water on the road. You say there is no water on the road, and thus, my experience doesn't match the reality of the outside world. Falsity can be assigned to my statement. If I can assign a truth value to a statement, then it has meaning.

If qualia are considered subjective in the sense of it being private and ineffable, then verifiability is a problem. How can I talk about the reality of something that only I know but cannot explicate? The next section explains these problems in detail.

2.3 Quine’s Perceptual Similarity

To understand what qualia is, it would be helpful to first look at Quine's notion of perceptual similarity because the major part of the theory of qualia is based on how qualia can be talked

about if it is claimed to be subjective. Quine has talked about the innateness of the notion of similarity, which seems to be subjective, but there is a science possible for the same.

Quine weaves a story of 'stimulus to science,' which is one of his book titles as well. He wants to account for the similarity that one shares with others of the same species despite having different neuronal structures. Where does this similarity come from?

In his paper 'Natural Kinds,' Quine approached this problem with three tools which he talks about at length: Induction, kinds, and similarity. He starts by discussing the problem of induction. Why in the raven's paradox, a green leaf doesn't serve as evidence towards all ravens are black, which is logically equivalent to all non-black things are non-raven? Quine says it is because of the non-projectability of the predicate terms, non-raven and non-black. The same is the case with Goodman's paradox of grue. What happens in induction is there is an expectation of the upcoming event. This expectation is based on similarity. One learns about the red in a tomato, and the next time the expectation of red in another tomato comes from the similarity in the cases. Quine dwells upon similarity and kinds for long and in number of ways how their definition can be captured. (Quine, 1969)

Intuitively, similarities and kinds seem to come from one notion. But how to capture this elusive relation? What comes close to the notion of similarity is properties. Similarities are abstractions from properties. When there is a commonality between properties one assumes the property-bearing things to be similar. The mathematical concept of the set gives structure to this relation in question. Let's say two things are similar if they belong to the same set. But membership in a set happens in randomness. There is no necessary property criterion for two things to fall into one set. Properties, hence, cannot be captured by the concept of sets. And thus, the notion of

similarity also can't be captured by the concept of sets. Also, there is a very evident difference in properties being intensional and sets being extensional. Properties derive meaning within themselves from their content or structure, whereas sets derive meaning from their members.

On the other hand, kinds are closer to the concept of sets because kinds are also extensional. But the relation between kinds and sets is not all-encompassing. Another factor is similarity has degrees to it. A thing can be similar in less or more degree to another. This leads to the implication that the kinds must then overlap or even contain other kinds. For example, a round thing is a kind contained in kinds of shapes. So, a thing can be similar to another in a wider sense of it being shaped and also in a narrower sense of it being shaped round.

We move from a single operator of similarity to considering the similarity in a comparative sense so that it might give a conclusive definition of both kinds and similarities. What does it mean to say 'a is more similar to b than to c'? If 'a' belongs to a kind and 'b' belongs to the same kind, a,b,c could belong to a bigger kind and then the comparison of similarity won’t make sense.

Let's suppose there is a norm around which there are similarities in properties of the things and norms. A shade of red can be a central norm, and similarity this way is defined by hit and trial of common or matching shades to certain degrees. Carnap has defined kind in terms of such a set that contains this central norm and other similar things added. The problem with this formulation is when it comes to mixed similarities, the relation breaks down.

We have seen similarity and kind are intuitive notions, very fundamental to cognition but still far away from logical or mathematical concepts. To get a sense of where this would lead, it is important to first see how fundamental the notion of similarity is. While learning about a colour, a child is ostensibly shown the colour. Repeated instances make the child learn the colour. But

this wouldn't have been possible if the child did not have a sense of similarity already. It shows that even when high functions of intelligence are absent in children or early humans, there still is a fully functioning workable notion of similarity. This shows that the notion of similarity is, in some sense, innate in us. As Quine would call it, there is a "prior spacing of qualities" (Quine, 1969). This knowledge about spacing cannot be learned by themselves. If they are not themselves learned, then some of them must be innate. Now, expectation in an induction depends on this spacing of qualities. Hence, it depends on similarity. There are more steps to reaching that conclusion though. Ostensive learning may be a case of induction, but how is it similar in all humans? How is one's spacing of qualities similar to other people? Induction is made strong through repeated successful expectations. Here Quine brings in Darwin. He says as primitive beings, we tried hit and error and made the inductions stronger. These inductions were a result of interacting with the environment. Through natural selection, species that had good predictability power of the environment survived. This way, induction became a tool to access the truth of nature. This intuitive notion of similarity, on which inductions were based, was passed on to generations in evolution. This can be comprehended as a "gene-linked trait" also. There are regularities in nature, which is out of the question. And hence there are regularities in our perception as well. Quine calls it 'perceptual similarity.' Thus, the innateness of the notion of similarity improves with experience. The argument goes:

P1: Induction is instinctive.

P2: Because the standard of similarity of perception is instinctive

P3: Perceptual similarity improves with experience

P4: Expectation in induction has better success rates than a random guess because of the above reason.

P5: Above is the case because of natural selection- standard of perceptual similarity is in fit with the environmental changes.

C: Therefore, we have uniformity in people's quality spaces.

This is what Quine has called pre-established harmony by natural selection in his paper 'Three Networks: Similarity, Implication and Membership' (Quine, 2000). One point to note is that for a given same stimulus, the perception person X has is not the same or even similar to the perception person Y has. This is not the kind of similarity Quine talks about. The neural setup of each person is different. And how the stimulus is processed would definitely be different. Suppose on seeing the color yellow, X has a perception A, and Y has a perception B. On seeing the color yellow for the second time, X has C perception, and Y has D perception. Here perception A is not similar to perception B. What Quine is claiming is that the innate structure of how perception is received is similar, which implies A will be equal to C, whereas B will be equal to D. Perceptual similarity makes habit formation possible. The notion of similarity is what is innate.

Patricia Churchland's objection (Churchland P., 1976)

Patricia Churchland has attacked the notion of Quine's perceptual similarity in her paper 'How Quine Perceives Perceptual Similarity. 'Her argument is that when more than one property of a thing is taken, the explanation of the notion of similarity using perceptual similarity breaks down. She shows the problem as follows:

Suppose there are kinds like red ball(b), red shawl(c), yellow rose(d), and white rose(e). If one is given a red rose, which kind would it be more similar to? Would it look for similarity in redness or in rosiness? As there are two ways of going about it, which one is more favored by perceptual similarity and why? The red rose is perceptually more similar to a yellow rose in one respect, whereas more similar to a red ball or shawl in another respect. The word ‘Respect’ here is a loaded term and conveys one's frame of reference while comparing similarities. Now consider this: a is perceptually similar to b, denoted as a#b. # stands for the relation 'perceptually similar to.' Now a being the red rose, a#b > a#d in respect of redness. But a#d > a#b in respect of rosiness. One should ensure asymmetry of relation 'perceptually more similar to' in order for perceptual similarity to work as an explanation of the innateness of the notion of similarity. Even if we spread the kinds and consider the receptual neighborhoods, the problem of lack of asymmetry of relation 'perceptually more similar to' poses as a problem. Quine has alluded to the problem himself by borrowing Goodman’s phrase “difficulty of imperfect community”. As mentioned above, he gives the example of red round things, red wooden things, and round wooden things. Each member of the kind is similar to others in some sense. But Quine dismisses Patricia's attack saying once the definition of similarity and kinds is worked out for even a single general standard of comparative similarity, the problem of respects is just an abstraction of the similarities in question.

Analysis of the problem

The explanatory relevance of an explanation comes from the discrimination of explanation against explaining something to be the case rather than something else. Perceptual similarity should be able to do exactly that. It should provide ground to explain why one, in a dispositional sense, perceives a more similar to be rather than to c; and not allow statements like a is more

similar to c than b in some other respect. The notion of 'respects' has to be removed from the talk because Quine claims that the notion of similarity is very fundamental to our cognition, and thus it cannot depend on respects. Because then one is not talking about the innateness of the perceptual similarity. However, Churchland's objection of the lack of asymmetry holds. One response can come from looking at how properties superimpose on each other. Let's say a rose has properties of redness, fragrance, rose shape, etc. there are kinds corresponding to these properties, red things, fragrant things, rose shape things. But properties have some kind of resonance with each other. If we can think of properties like rosy redness and rosy fragrance, then there would be corresponding kinds to them. These are single kinds that have two properties superimposed.

Gary Ebbs has written on the problem which is worth noting here. There are two notions to be paid attention to. Intersubjective similarity and stimulus meaning. Intersubjective similarity is the dispositional perceptual similarity among the subjects, humans, and stimulus meaning is the perception of sensory stimulus irrespective of disposition to behave towards it. It is a question of much concern how intersubjectivity happens when the nerve endings are etched differently for everybody (Ebbs, 1994). There is an example given by Quine in his paper, 'Three networks,' that when a bunch of bushes is cut into the shape of an elephant, the bush structures don't match with each other, but the shape does (Quine, 2000). The same is the case with the neural structures and the structural outcome of the stimulus. Of course, it depends on the physical neural network. But the structure of perceptual similarity has evolved with the need to fit into the outside world. The existence of language is proof of this theory. Natural selection is the reason why perceptual similarity came into being in the first place. The observational sentence of the intersubjectivity holds the same meaning as the stimulus meaning. One can notice that for both, then, the

propositional content is the same. This is similar to Wittgenstein's picture theory of the world and mapping of the state of affairs outside of the state of affairs in the sentence. Although he talks about language here, and moreover, Quine would refrain from accepting any mentalistic construct, the idea seems to be similar behind both claims. Quine has responded to Ebbs's review of the paper 'pursuit of truth' that intersubjectivity is the pull of the outside world on the anatomical structures of the mind, which imposes objectivity of the world on the private stimulus meanings giving rise to perceptual similarity, which is shared by the species.

Quine on dissolving similarities and kinds

Quine to shows how for more successful inductions, our intuitive notion of similarity and of kinds has to dissolve. Quine explains this as follows. As explained earlier, induction is the prediction of the next event based on the similarity of the previous ones. A good prediction goes a long way in the survival of the species. Thus, evolution pushes such a trait in the species. Induction is about the outer world, and the changes in the outer environment are accommodated in the induction by learning from multiple such instances. It is a dynamic, ongoing process. Every successful induction strengthens the chances of survival. Organisms survive through natural selection based on the condensed form of induction inculcated in the form of an innate trait for the next generation or the generation after that. The notion of similarity and kind are such fundamental notions on which induction works. This innate notion of similarity is thus supported and encouraged by natural selection. This is why the notion of similarity feels intuitive uniformly across the human species. Now special sciences have refined their induction by employing modified systems of kind. A primitive standard of similarity is intuitive but not necessarily accurate. It is functional in the respect it is meant for a function. For example, the similarity between chromatic perceptions helps us navigate the world, and thus perceptual

similarity serves its purpose here. But in sciences like chemistry, scientists have been able to find out an accurate and concise definition of kinds. They are distinguished based on atomic numbers here. Thus, any property, like solubility, can be explained in terms of the atomic structure of molecules rather than arbitrarily going on about what seems intuitive (counterfactual conditional like: "If this were in the water, it would dissolve"). These theoretical standards have better categorization and hence better-structured kinds and thus successful inductions. Quine says, "Once we can legitimize a disposition term by defining the relevant similarity standard, we are apt to know the mechanism of the disposition, and so bypassing the similarity" (Quine, 1969). In a mature science, the dissolution of the notion of similarity is desirable for further successful inductions and better survival chances through evolution. As of now, such precisely defined kinds exist in different special sciences in their context. However, one can hope to capture a universal yet precise definition of kinds.

2.4What are qualia?

I have mentioned in the previous section that qualia T1 of an experience at t1 is a token. It is different from the token of qualia T2 of the same or similar experience at t2. What is a token?

Every sense experience has perceptual data received from the outside world. This perceptual data is packaged into a token. For example, we listen to a sound. The sound waves are the perceptual data that the perceptual apparatus of our body captures. The sound waves themselves do not have the property of being heard. The property of hearing lies in our body. The anatomy of the ear is as follows: the ear starts on the outside, followed by an ear canal towards the inside, which in turn is followed by the eardrum, three small bones in the middle ear, cochlea, and finally hair-like projections on the cochlea. The sound wave creates vibration in all the parts till cochlea and

the hair-like projections release the chemicals, which create electric signals by rushing through the cells. These electric signals are carried by the auditory nerve to our brain, which changes it into a sound that we are able to hear. It is the same old question of how electric firing creates visuals or sounds that we see or hear respectively. But there is more to it. The perceptual data is modified in a way that we are able to hear a recognizable and understandable sound. As discussed earlier, recognizing, differentiating, and finding similarities, i.e., having refined kinds, improves with repeated instances of experience. Perceptual data flows in the physical auditory apparatus, tokens are formed from these captured perceptual data which have the phenomenal content of the experience.

The token:

A token has phenomenal content of an experience. Every experience generates a different token. The qualia of drinking orange juice first thing in the morning are different from the qualia of drinking orange juice after meals. The former tastes sourer. The phenomenal content is felt due to the packaging of the perceptual data in a certain way. This 'certain way' is structural in nature. There is nothing contradictory here to pose a problem over the statement that phenomenal consciousness has a qualitative aspect of the experience. What it is like to go through an experience is about the 'raw feels' of the experience, but also the experience is had because the perceptual data is packaged in a certain way for our mind to receive it. One might confuse structural with functional. A functional system has a systemic structure through which the functional roles are carried out. But it is not necessary that every structural entity is functional. Functionality is different from the object being itself.

Token is not a notion same as a concept. The notion of concept in the philosophy of mind generally occurs in the representational theory of mind. The representational theory of mind treats propositional attitudes like belief as a relation between the person and her mental representations. These mental representations form a part of the internal system of representations. The complex representations are made of some basic representations which have "language-like syntax" (Margolis, Eric, and Stephen Laurence, Concepts, SEP). These are concepts. Concepts are the building blocks of thoughts. The token contains phenomenal content. Take the example of drinking orange juice. The qualia of drinking orange juice consist of the visual, auditory, and gustatory quale. These together form the qualia of the experience of drinking orange juice. What it is like to taste orange juice is not conceptual in the sense that it has only representations playing a part in their internal system. concept is more linguistic in the sense of 'language of thought' (Fodor, 1975), whereas what we are talking here about the token is more about the phenomenal content. Phenomenal content can be representational in the sense that it can be about something (This will be better explained in the next chapter). But it is not a representation, per se.

The type:

The tokens are structurally compatible with the type they belong to. Type in its general sense lies near the general notion of universals, sets, or kinds. Here, I use the word type in a particular sense. Type is an entity to which tokens attach themselves according to their structural compatibility with the type. There are many different kinds of types, and they are sometimes in hierarchical relation with other types. It would be helpful to understand types as a notion similar to Quine's perceptual similarity (Quine, 1969). Type is acquired by humans through many hits

and trials to make the inductions stronger. Natural selection favored this trait because it was useful in survival.

Type is not a relation. Relation involves at least two entities for its coming to existence. Relations form a set of ordered pairs. Type doesn't require two entities; it is a stand-alone entity.

Type, like the similarity, discussed earlier, is not a set. A set is extensional. It derives its meaning from the members of the set. But type is not extensional. The set of students in class is S1, and the set of students in class except student x is a set S2. S1 is not equal to S2. But the type Taste of orange juice T1 will remain T1 even if a few instances of drinking orange juice are removed. This has been explained well in previous sections of this chapter.

Type cannot be understood as a universal. The notion of universal is prevalently surrounded by debates. There are many senses in which the notion is treated. One general sense is universals are what properties refer to, like redness or softness. There are instances of universals called particulars. Type is not a property. A property may have degrees to it when it partakes in an appearance in particular. A type is an abstract object. In a red ball, the redness and the ballness are two different universals. But in the taste of orange, the type consists of no fracture of two types. There may be different tokens belonging to the type of taste of orange, but the type is one unit consisting of many phenomenal contents.

Relation between type and token:

i) The token attaches to the type through structural compatibility. Token and type share a relation. But the general notion of phenomenal consciousness is that it is not relational. I would like to point out that a token has the phenomenal content and the structure to attach to type, and it has a relation with type in this sense, but it is not

related to any other entity or module of the mind. So, it is relational but only in terms of type. It is not even related to tokens of the same type. They are not directly accessible to any entity other than type.

ii) The word attaching is used to make sense of the interaction between the token and type. A type is an abstract object, but it has underlying physicality, which is explained in the section on Quine above. A token is also an abstract object which has underlying physicality. It is an interaction of two abstract objects in a way one is contained in the other (explained more later in chapter 3).

iii) Can there be a token without type? We cannot experience the world the way we do if the token doesn't fit into a type. The existence of fundamental types, like identifying similarity, doesn't depend on the existence of a token. Having said that, there are new types formed for new experiences that we have. This builds on the already underlying structure of fundamental types. This is what makes evolution possible. The structure of the token resonates with the structure of the type.

iv) All the operations of the mind happen upon the structure. The accessibility and comparison and other function an agent has to fulfill in order to survive and thrive is done on the types. Types are accessible and used in functions. The token takes part in it indirectly. The token is just phenomenal content with structure. It is accessed through the type.

v) Types can become the content of states. They can assume functional roles. They can be used in higher-level mental activities like thoughts.

Phenomenal consciousness is innate and subjective

The innateness of phenomenal consciousness is biological and shouldn't be understood in the classical sense of the word. As explained in section 2, the structure we have in our minds, which helps us perceive the world, is a product of evolution. The training of the mind over numerous trials and forming of better inductive knowledge happened through the biology of the brain.

The subjectivity of phenomenal consciousness comes from the inaccessibility of tokens directly. This will be explained in depth in 3rd chapter.

3. Phenomenal consciousness is not Reducible to Access consciousness

To see whether phenomenal consciousness is reducible to access consciousness, we have to look at two things: the kind of reduction possible and the proposed difference between phenomenal consciousness and access consciousness.

Searle has distinguished five kinds of reductions: ontological reduction, property ontological reduction, theoretical reduction, logical or definitional reduction, and causal reduction. (Searle 1997, 69-80).

For consciousness, only two notions of reduction have to be considered, i.e., ontological reduction and causal reduction. Theoretical reduction is the reduction of one theory to another such that the "laws of the reduced theory can (more or less) be deduced from the reducing theory" (Searle 1997, 69-80). Logical reduction is the possibility of translating sentences about an entity into sentences about another entity. Both these types of reduction are secondary in the sense that they are about the language used to describe reduction and not the entity itself.

3.1 Ontological reduction

Ontological reduction is the reduction of one entity shown to be consisting of the reducing entities. A reduction of one entity to another is possible if the reduced entity is the whole made of the parts it is reduced into. It is a simple operation of breaking down things into smaller parts in order to understand the whole. One variation of ontological reduction is the property

ontological reduction, where a property is reduced to another because the former is 'nothing over and above' the latter property.

3.2 Causal reduction

It is a reduction of the causal power of an entity to the causal power of another entity. If x has the causal power to produce y, and y, in turn, has the causal power to produce z, then; z can be reducibly explained in terms of the causal power of x. This way, even causal reduction is an offshoot of ontological reduction. The reduced entity is explained in terms of the entity it is reduced into. For example, lightning can be explained in terms of electrical discharge. The former phenomenon is explained in terms of the latter phenomenon, but the explanation is about the phenomena. An explanation only bridges the ontological reducibility between the two phenomena. Reduction of the explanation of reduced to explanation of the reducing phenomenon corresponds to the respective phenomena itself. They have an underlying ontological reduction to support a reduction in explanation.

Now, the question is: Can p-consciousness be reduced to a-consciousness? To answer this, we need to look at how Ned Block has defined these terms. Next, can p-consciousness be reduced to a-consciousness ontologically or causally?

Consciousness encompasses many notions like alertness, awareness, functionality, and phenomenal quality, among others. Amidst these notions, it is natural for the philosophers of mind to have debates about consciousness. Ned Block claims that confusion arises because consciousness is treated as one notion but is comprised of two different types of consciousness. Hence, he distinguishes two types of consciousness: phenomenal consciousness and access consciousness. He has taken various examples to show as well as defend the distinction. His

description of p-consciousness is different from what generally is understood by the term phenomenal consciousness. For him, p-consciousness is synonymous with experience. Its content is experiential; its state and properties are experiential. In addition to this, he claims that p-consciousness is often representational. A-consciousness is necessarily representational. And it is not because of the content type that a-conscious state becomes a-conscious but by virtue of it being accessed. P-conscious state is p-conscious only because of the content type. The difference has been deeply discussed further in the following sections. For now, let us use the working definitions of p-consciousness and a-consciousness. (Block, 1995)

3.3 Argument Against Causal reduction

As explained earlier, an entity is causally reduced by explaining the causal power of the entity in terms of the causal power of another entity that caused it. Solid objects are impenetrable. Solidity is the effect of the vibratory movements of molecules in the lattice structure (Searle, 1997). The impenetrability of solid objects can be explained in terms of molecule movements. If p-consciousness has to be reduced to a-consciousness, then the feeling of what it is like to be in a state has to be explained in terms of the state being accessed by other states of the system.

Take the experience of eating an orange. It is something like eating that orange. Let us call it mental state M1. M1 is just an appearance if we see it analogous to solidity. As things appear to be solid by virtue of their internal structure, so do things that appear a certain way to our mind by virtue of how our mind functions. Functionalists claim that the existence of M1 is the effect of the causal power of the functional system of the mind. And thus, it can be reduced to the property of being accessed.

i) First, it is assumed by the functionalists that what it is like to be in a state is just a property of the mental framework of physical phenomena and their function. This forms a premise in their argument for the reduction of what it is like to be in a state to the functional roles and specifically functional states, which in turn can be explained by the physical processes of the brain.

   But in the case of solidity, everything about impenetrability can be explained in terms of the object being solid and why it is solid. The underlying reason is that there is a micro theory of molecules to support the causal explanation of its macro phenomena. These micro and macro phenomena are bound by some sort of law or generality (Hempel and Oppenheimer, 2008). However, in the case of phenomenal consciousness and brain process, we do not have any such law to bind the macro phenomenon of phenomenal consciousness to the micro phenomenon of neural activities. It is the case of a lack of either a micro theory for p-consciousness or a law binding the available micro theory and p-consciousness or both. Whichever be the case, the outcome is that it cannot be proven that p-consciousness is reducible to brain functions or even brain processes.

ii) Second, what about the claim that a-consciousness causes p-consciousness? It is by virtue of being aware of the p-consciousness of an experience that the p-consciousness of experience is felt. Even if we deny the stronger version of this claim that a-consciousness causes p-consciousness, one is tempted to accept that a-consciousness is temporally and logically prior to p-consciousness. P-consciousness depends on a-consciousness to be called conscious at all. However, the problem with this claim is the same as the problem with the sentence, 'I know that I know that I know….'. This can go on *ad infinitum*.

Similarly, I can say I have an awareness of x; I have an awareness of awareness of x, and so on. There is no point at which it can stop. Having an awareness of x presupposes you have an awareness of your awareness of x.

iii) Third, if a-consciousness is just the property of being accessed, how can a property of being accessed give rise to what is being accessed? What exactly will be accessed without the phenomenal content? The question leads to an obvious answer that one has to look at the ontological difference between p-consciousness and a-consciousness to see whether the former can be reduced to the latter. We see here that p-consciousness cannot be causally reduced to a-consciousness

3.4 Argument Against Property ontological reduction

Before we move to ontological reduction, there is another claim that can be made that p-consciousness and a-consciousness are two properties of a substratum. The nature of the substratum is not in question here. Let us assume there is a substratum, of which p-consciousness and a-consciousness are two properties. If p-consciousness is to be reducible to a-consciousness, then p-consciousness has to be supervenient on a-consciousness. This means that any change in a-consciousness would change p-consciousness. But what would amount to a change in access consciousness? There is either a complete change of a-consciousness becoming not a-consciousness, or there is a change in the type of it being accessed content. As the content of a-conscious state is just the awareness of other content, no types can be assigned to a-consciousness. So, we are left with the scenario where if there is no access consciousness, there would be no p-consciousness. Block grants that “A feature of p-consciousness that is often missed is that differences in intentional content often make a p-conscious difference” (Block,

1995). But not all cases of p-consciousness differ when there is a difference in a-consciousness. Block gives the example of an epileptic seizure where the uncontrollable jerks cannot be accessed and hence controlled, but the p-consciousness of the experience is present.

3.5 Argument Against Ontological reduction

I will go back to the descriptions of p-consciousness and a-consciousness provided by Ned block to see what is the ontological status of the two.

There are two noteworthy points Block makes in his paper-

i) "…differences in intentional content often make a p-conscious difference." (Block,1995)
ii) P-conscious properties are distinct from cognitive, intentional, or functional properties.

This sounds controversial, as Block himself points out the same. Let us have a look at the distinction he makes between p-consciousness and a-consciousness.

i) The first difference is between p-conscious content and a-conscious content. P-conscious content is phenomenal. It has experiential properties like smell, taste, and pain. Although p-conscious content is phenomenal, it is also representational sometimes. There can be two aspects of phenomenal content. There is the phenomenal aspect, and then there is the representational aspect. And sometimes, both are present in the phenomenal content. What it is like to be in that state is given by the phenomenal content. They are representational in the sense that the sometimes experiences are of something. In this way, they are sometimes transitive and sometimes intransitive. Access consciousness is

always transitive. Access-conscious content is a part of the reasoning, whereas p-conscious content is not.

ii) A-conscious states have representational content which is accessed by other systems, and by virtue of being accessed the state becomes an a-conscious state. In this way, a-conscious states are functional. P-conscious states, on the other hand, are not functional because even if they are representational, the representations cannot be accessed.

iii) There is a type of state which is p-conscious. But a-conscious states are a-conscious by virtue of their being accessible. It is in relation to the system that a state becomes a-conscious. There is nothing inside the state that makes the state a-conscious. (Block 1995, 227-287)

There are a few problems with how p-consciousness and a-consciousness have been described and distinguished from each other here.

i) What does Block mean by representation? Mental representation means that there is a semantical structure that has content, semantic value, and references, among other things. Representational content is characterized by it being about a representation of something. What makes a state intentional is that it is about something. It is characterized by the word ‘that .'I believe that, I desire that, I imagine that, and so on. Intentional states are relations to mental representations. (SEP, Mental Representation). When Block says that phenomenal content can be representational, he means that it can be about things of the outside world. I perceive a rose, and this phenomenal content of what it is like for me to see a rose has a representation of the rose that I see. This way, the p-conscious state is sometimes transitive. The phenomenal content is just the feeling of what it is to see the

rose. A phenomenal state is sometimes just the feeling of what it is like, and sometimes what it is like is accompanied by what it is about. What makes a state access conscious is just the fact that a state is accessible. It has a role in the functional apparatus. It is a functional state because it has a function that is acquired by virtue of being in relation to other states. There is no type of access-conscious content.

ii) To see the above theorizing of consciousness in a different light, what can be concluded is there are two types of content: phenomenal content with representation and phenomenal content without representation. They form the content of a state. States have two properties: either they are accessed, or they are not accessed. Accessed states are necessarily representational. This leaves us with the conclusion that all mental content is ontologically phenomenal. The representational phenomenal content is sometimes used in functions of the mind and sometimes not. Why have a distinct category for consciousness as access consciousness when all we are talking about is the property of the consciousness to be accessed or not accessed? Thus, there is only one type of consciousness, phenomenal consciousness.

All the stimulus we receive bring phenomenal consciousness about them. The phenomenal states then are either accessible or not accessible. If they are accessible, it happens through ‘types’. In this whole process there is no state which becomes a state by the virtue of merely being accessible.

4.Possibility of explanation of phenomenal consciousness

The problem with explaining phenomenal consciousness is that it is subjective in nature. The phenomena in the outside world can be explained because they are objective. The phenomena of the outside world are true in the third-person perspective. The appearance of the phenomena can be separated from the objective facts of the phenomena. Reductive explanations are employed to explain the appearance and its reduction to fundamental particles and their activities. We have seen that reducing phenomenal consciousness to access consciousness is not possible. Neither the reduction of phenomenal consciousness to the physical brain activity gives any solution to the explanatory gap of how consciousness comes about from the brain processes.

Consider these two sentences:

S1: There is water on the road.

S2: I feel there is water on the road.

Truth value can be assigned for S1 because it is an objective sentence. S2 carries the subjectivity of the subject, and although one can assign truth values to beliefs, it is difficult to imagine someone saying to the subject that her feeling is wrong. Saying what you are feeling is not the case is again in the direction of making objective statements. But it cannot be said that you are not feeling this way. A subject is the sole verifying means of its subjective experience. The question arises, how, for such claims can we have a method of justification or evidence? Science

works on evidence and observations. Consciousness is closed to such ‘outside’ justifications and proofs.

In such a case, it seems impossible to have a science of consciousness. As Searle says:

“Science is, by definition, objective (as opposed to subjective).

Consciousness is, by definition, subjective (as opposed to objective).

Therefore, there can be no science of consciousness.” (Searle, 1998)

4.1Explanations

Can we even have an explanation for phenomenal consciousness then? The general structure of explanation is that there will be an explanandum that has to be explained, and then there are explanans that contributes to the explaining of the explanandum. All this lies in a chosen framework within which explaining happens. Take the example of tipping over of inkpot when one’s knee hits the table on which it is kept. There can be an explanation of how the laws of physics applied to the given situation yielded an outcome of tipping over the inkpot. There can also be a simple causal explanation of how one hit the table, which moved the inkpot to the edge, resulting in its fall.

Robert Van Gulick has discussed various explananda that arise around consciousness. (Gulick, 1995):

i) What are the types of mental states? What is a conscious state? How is it different from the non-conscious state?

ii) What is it to be a conscious creature? What does it mean to be conscious? What are the parameters to decide whether a creature is conscious?

iii) Why is there a qualitative nature to experience? What are qualia? Where and how do qualia arise? How can qualia be accounted for?

iv) How is the experience of a unified self, possible? What are the conceptual organization, order, and connectedness in an experience?

v) The subjectivity of experience a subject undergoes.

This thesis deals with the explanandum about qualia and how it corresponds to the world outside. However, in doing so, one is confronted with the problem of subjectivity of qualia as it hinders any path through which qualia can be talked about, verified, and evaluated. Thus, the problem of subjectivity becomes a subsidiary explanandum that must be explained to have any explanation about qualia. Even if I am able to tell how I feel, how can we have a science of these 'feels'? We need a system for observation, a system to test the observation, and a system for allowing justified statements.

I have experience of tasting an orange. It is my subjective experience that I cannot pass on to anyone else. I would not say I cannot share my experience. There are words using which I convey how I feel. What cannot be shared is the exact qualia token T1 of eating an orange with someone. But I can talk about it. What does that mean? It means that when I say phenomenal consciousness is subjective, it does not mean it is private. It means it arises from my first-person ontology.

4.2Nagel's subjective-objective distinction

Nagel claims that what it is like to go through an experience is irreducibly subjective. He denies any claim of possibility that phenomenal consciousness can be ever "analyzable in terms of any explanatory system of functional states, or intentional states" (Nagel, 1974). The phenomenological features of phenomena in the world can be reduced to physical underlying basis because in such objective cases, the phenomenological features are not under study, but the underlying phenomenon is under study, and it exists objectively no matter how we perceive it. In the case of the phenomenal character of our experiences, the study is about appearance itself. And thus, we cannot take away the subjective phenomenal character and look at it through an objective lens. He gives an example of bats. Bats are physiologically different from us, and their perception of the world is also different from ours. This gap of structural difference between bats and humans will not let it be possible for us to know 'what it is like to be a bat' (Nagel, 1974) ever. There is a subjective core to all our experiences. The world appears to us the way it does because of this subjective core. As we move away from the core, the degrees of objectivity increase. When other things are concerned, a reductive explanation of a phenomenon is just a move towards more objectivity. It is possible to do so because there is more to the phenomenon than just the subjective experience of the phenomenon that we have. In the case of reduction of the subjective core to something more objective, the problem lies in the phenomenon being exhausted by the subjectivity itself.

Nagel believes that new concepts and methods must be devised to account for the subjective experience. The way science is done generally is not going to lead us to the understanding of what is this phenomenal feature of experience that we have.

4.3Searle's conception of subjective-objective difference

The problem sees some light in the conception of subjectivity by Searle. He makes a distinction between ontological subjectivity and epistemic subjectivity and; ontological objectivity and epistemic objectivity. According to him, consciousness is ontologically subjective because the very existence of consciousness depends on its subject. (Searle, 1998)

Epistemic objectivity: A sentence is known to be true irrespective of prejudices and opinions of people. Sentences in science are epistemically objective.

Epistemic subjectivity: A sentence is known to be true depending on the opinion, prejudice, and attitude of the person. Sentences regarding beauty are epistemically subjective. Epistemic subjectivity does not hinder the possibility of a theory or explanation of the concepts involved. The concepts are ambiguous and not strictly defined as in science and hence lend up to subjective opinions of people.

Ontological objectivity: The mode of existence of the entity is objective. Everything in the world outside that we see is ontologically objective. Their existence does not depend on another subject.

Ontological subjectivity: The mode of existence of the entity is subjective. It depends on its subject, and without them, it cannot exist. Consciousness is ontologically subjective.

Searle claims that although consciousness is ontologically subjective, it can still be studied objectively because it can be studied through epistemically objective science. He gives an example to elucidate this: S1: "JRS now has a pain in his toe" (Searle, 1998).

He does not make it clear, however, how ontologically subjective pain is being talked about with epistemic objectivity. The sentence S1 has meaning. We understand what is being said when it is said that JRS has a pain. The meaning of the sentence is derived from the reference of the sentence. JRS has a reference for me in the outside world. His toe has a reference for me. But his pain has no reference for me to understand what exactly he is going through. If I do not have access to his pain, what am I understanding? How, then, is this a completely objective statement? One way to understand this is as follows:

Consider an animal that does not have the sophisticated form of language as humans do. If the animal is in pain, one can assume that other animals come to know about it through evident behavior. But animals can anticipate situations that most probably would cause pain. Not just for themselves but for others in the herd or tribe too. Mostly for their own offspring. This anticipation of pain presupposes the shared knowledge of what it is to be in pain.

4.4The subjectivity of token and objectivity of type

As discussed earlier, a token has phenomenal content of the experience, and it attaches with type, which is accessible to other activities of the mind. In order to explain the subjectivity of our experience and look at a possibility of explanation for phenomenal consciousness, I am going to take this notion of token and type into consideration.

Let us say I have a visual experience of a red-colored object. A second person, call her Veena, looks at the same red object. My subjective phenomenal consciousness of the experience is different from her phenomenal consciousness of the experience. The token of the phenomenal content of my experience is myRedT1, and of Veena's is vRedT2. myRedT1 and vRedT2 are subjective and cannot be shared with anyone as tokens are different for each experience, even

intra-personally. There is a qualia type of red objects. myRedT1 is the qualia of a particular red event under the qualia of red. myRedT1 is not shareable. But the qualia of red are shared. If qualia of red were to be un-shareable, we would not even know what one is talking about; not only Mary but everyone in the outside world wouldn't be able to make sense of the world. We call x red. How two people come to call it red is by putting similar colored objects saying x is red, so is y. We 'build' the notion of red. Because of the perceptual similarity shared by our species, we have a common structure to our perception. That structure is the type. The token is subjective, but the type is objective. The token is created by the subject, and it is subject-specific as well as subject-dependent. It has structural compatibility with the type. The types are objective, open to access, and operations. The comparison of token T1 in memory with T2 in the present happens through type. The recognition of patterns, similarities, etc., are the mental operations that take place on types. So, what is being accessed is the type.

One may still argue that tokens have phenomenal content, and they are not accessible. This renders phenomenal consciousness inaccessible, and thus the old problem of shareability, ineffability, and subjectivity of phenomenal consciousness persists. Token is part of the type in a way that it attaches to the type through structural compatibility. This structural compatibility shared between token, and type alludes to the commonality in their structure. By commonality, I mean that the structures have common points of merging. So, when the type is accessed, part of the token is accessed indirectly. Accessibility is not a binary action. It is not the case that something is either completely accessible or completely inaccessible. The contents of a token are partially accessible, and hence despite being subjective, it can be talked about. It is not ineffable.

Possibility of explanation

The scope to talk about phenomenal content opens doors to the possibility of its explanation. The explanation would have a structural model where one entity is explained in terms of another because the former is structurally embedded in the latter. The explanatory power lies in the structural relation of the two entities. This way, there is a possibility of an explanation of phenomenal consciousness.

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The Problem of Explaining Phenomenal Consciousness

by Shipra Shukla

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1. Introduction

Mind is a topic that has intrigued philosophers for ages now. How something physical like brain can give rise to the experiences we feel or visions we see or dreams we dream etc. is a question which constitutes a major query in philosophy of mind, which David Chalmers calls the hard problem of mind. The contemporary face of the problem of mind can be traced back to Descartes' distinction between, mind- the immaterial substance and body- the material substance. Since then, philosophers have been trying to solve the nature of interaction between mind and body, which has given rise to the connotative phrase 'mind body problem'.

1.1 Consciousness

Consciousness has been one of the main bones of contention in the debate on the mind body problem. To define consciousness is a task which is elusive. There are so many ways to look at consciousness that when one talks of consciousness it becomes one's imperative to tell which sense of consciousness is being talked about. The various senses of the word 'consciousness' can be broadly divided into three categories, namely, Creature consciousness- when we talk in the sense of creature being conscious. Creature consciousness can either be understood in terms of sentience, i.e., the creature is able to sense its surroundings and responding accordingly (One can talk of degree of consciousness where it is possible that one organism is less or more conscious than the other in terms of how alert and responsive it is to the surrounding.), wakefulness or self-consciousness, etc. Second category is State consciousness- when we talk of mental states being conscious. The third category is consciousness as an entity itself- It talks of consciousness in the sense of what constitutes consciousness. For example, in one sense it is considered that consciousness is abstracted from a neurological or functional feature which has no separate

existence. This view can be considered in realist as well as idealist way. If taken in realistic sense then it is like electromagnetic field which is caused by charge on atom but is as real as the atom. An idealist's position would be similar to a vitalist position on life being nothing over and above living organisms, as consciousness is nothing over and above its functional aspect.

The categories beg for a distinction between 'conscious' and 'unconscious' in their respective senses. If we talk about conscious being then how is it different from unconscious being or when we talk of conscious state then how is it different from unconscious state.

1.1.1 State Consciousness

My concern in the study would be to deal with state consciousness. As stated above, State Consciousness deals with the mental states. Mental states can be phenomenal, representational, states with meta-intentionality (mental states that are about other mental states) etc based on the mechanism involved or the kind of content it has. Representational state will have representational content which is intentional, qualitative state will have qualia as its content, and so on. There are other senses of state consciousness too, for example, phenomenal states, access consciousness (Ned Block, 1995), narrative consciousness (Dennett 1991, 1992) or What-it-is-like states (Nagel, 1974). These notions mostly overlap each other and distinctions are very fine. As the different senses of state consciousness overlap in their use I divide them into two main distinctions, namely, phenomenal and functional. I will be approaching the topic with the meaning of consciousness which deals with phenomenal consciousness as well as access consciousness which is functional.

1.2. Why is there a problem in explaining consciousness?

The problem in explaining consciousness mainly arises because of two reasons, namely, the nature of consciousness and explanation.

1.2.1 Nature of consciousness

Phenomenal consciousness- The distinction between phenomenal and access consciousness was highlighted by Ned Block in his paper "On a confusion about a function of consciousness". Phenomenal consciousness is the consciousness of experience that we have in the first person perspective. The account of what it is like to have that experience can be given by the person alone who goes through that experience and yet this first person perspectival knowledge of 'what-it-is-like' cannot transferred to any other person or machine. This qualitative aspect is sometimes called qualia. Qualia are the properties of experience which is subjective. The experience of a person eating an orange has quale of taste, color, smell etc which constitutes what-it-is-like for that person to eat orange and it can, in no way, be transferred to other person. In this way, phenomenal consciousness is considered subjective. It is what is left when everything functional and perceptual is stripped off from the perceptual data of experience and the residue is consciousness of the 'raw feel' of the experience, subjective to the person. This subjectivity of the perceptual conscious state is supposed to keep the mental state separate from the causal network of mind as the mental state cannot be accessed by the other functional mental states.

Access consciousness- When discussing consciousness, Functionalism has upheld strong views about consciousness having a functional role. Functional role is understood in causal terms. Philosophers, advocating that the nature of consciousness has functional aspect, claim that

conscious states interact with other conscious mental states, manipulate them, are accessible by them, and have a function in the causal picture of mental world. Access consciousness, as the name suggests, constitutes of accessible mental states which have functional roles. Ned block explains access conscious state as, "A state is access-conscious if, in virtue of one's having the state, a representation of its content is (1) inferentially promiscuous (stitch 1978), that is, poised for use as a premise in reasoning, (2) poised for rational control of action, and (3) poised for rational control of speech". This definition situates access consciousness in the center of the functional mechanism of mind which deals with input mental states and their respective outcome as speech, action and/or another mental state. Hence, a purpose is involved in the concept of consciousness here. The states, by the virtue of being accessible, do not have subjective content (subjective in the sense of privacy of content).

Having made the distinction clear, the question arises; how does state consciousness in the sense of access conscious states account for the phenomenal aspect of experience. Do they have to be entirely separate? Another question is, if consciousness is taken in phenomenal sense then what purpose is rendered to consciousness? Some philosophers claim that access consciousness itself takes care of the phenomenal aspect of experience in the sense that there is no phenomenal aspect or qualia per se, just the functional aspect of consciousness (Dennett 1988). Others just reduce either phenomenal consciousness to access consciousness or separate access states from the concept of consciousness altogether. Can this kind of reduction be accepted?

The difficulty in explaining consciousness is apparent here that the nature of consciousness as phenomenal and access conscious states, it seems, cannot be put together to have a complete understanding of consciousness. The intuition I am going to follow is to take these questions

further and explore if there is a possibility that phenomenal and access consciousness is inseparable.

1.2.2 Explanation for Consciousness

Explanatory gap- The neurobiological demonstration of pain would be C-fiber firing in the brain. But how this physical phenomenon of the brain gives rise to what we feel when we are in pain forms part of the problem called the explanatory gap. The present explanatory models cannot capture the 'intelligible link' between the physical and the psychological, as mentioned above. This is one form of explanatory gap, the stronger is what McGinn has claimed that we are cognitively closed to understanding of such a link and hence can never know why and how physical properties give rise to phenomenal properties. So this Explanatory gap is one of the reasons of difficulty in explaining consciousness.

Subjectivity- The explanatory power of an explanation of consciousness is affected and moreover hindered by the fact that we are dealing with something that is subjective in nature. The phenomenal consciousness is purported to be subjective and thus a person experiencing eating an orange can't deliver this experience to anyone else by any means. To explore whether any explanation model can accommodate subjectivity of phenomenal consciousness one has to look if an explanation can accommodate a subjective concept, which means to explore the ontology of subjective concepts and how they can be talked about at all given the non-shareablity of subjective concepts.

The nature of consciousness as well as the explanation, are two difficult and confusing problems independently. When taken together these make explaining consciousness yet more difficult and complex.

1.3. What should a required theory of explanation encompass?

As the nature of mental events is so different from physical events, one has to rethink concepts like causation, function, explanation in the new light of the mental world. Setting an explanandum out of the various problems is the first task. Second is to check for framework which suits to be a set from where explanans are derived and finally the kind of relation that is asserted between explanans and explanandum (Gulick 1995).

1.4. Structure of the thesis

In this work I will begin with stating and proving that phenomenal consciousness exists, as opposed to the claims of functionalists. Then I will establish what are the features of phenomenal consciousness or qualia. I will be using both the terms inter-changeably. Even if the phenomenal features of experience are granted, they are reduced to access consciousness or some form of functional state. In the second chapter I prove that the reduction of phenomenal consciousness to any functional state is not possible. Further that there is no relevance in coining the word access conscious state for any mental states of mind. Finally, I talk about if there is possibility of an explanation of phenomenal consciousness. Here I discuss about the issue of subjectivity of phenomenal consciousness and how it can be accommodated in an explanation.

I hope the research work would bring clarity to the nature of consciousness in terms of it being

Both phenomenal and functional, which, further will provide a new structure of consciousness.

By structure of consciousness it is meant that how consciousness figures in the whole causal

structure of mind which in turn suggest a model of explanation for the same.

2. Phenomenal Consciousness Exists

One of the most used and precise descriptions of phenomenal consciousness was given by Nagel when he gave the phrase what-it-is-like (Nagel, 1975). He asks us to imagine what it is like to be a bat. Bat has a different perceptual apparatus than we have. We know many objective facts about bats and their living. We know that bats navigate in the world through sonar. Their perception constitutes of echolocation, they are sensitive to high-frequency sound waves, and they have sense perception to catch the reflection of those waves. One can reason and explain how a particular bat deflected from its path when faced with physical obstruction. Despite knowing all these facts, we do not and cannot know "what it is like to be a bat" (Nagel, 1974). The experiences of a bat are subjective to the bat which cannot be shared with us no matter how sophisticated a system we invent for doing it.

Similarly, the phenomenal consciousness is subjective. No matter what advances science makes, it can never be transferred to another person as it is. This notion of phenomenal consciousness resonates with the idea many philosophers have of phenomenal consciousness.

Daniel C. Dennett is one of the many philosophers of mind who don't grant any ontological status to phenomenal consciousness, or even if they do, they see it reducible to some functional or physical state. In this chapter, I argue against Dennett's claim that there are no qualia. Once I establish that with the help of Quine's perceptual similarity, I will formulate what qualia are. I will be using qualia and phenomenal consciousness interchangeably.

1.1 Dennett's Conception of Qualia:

Dennett has tried to catch the meaning of the word qualia in various ways through what he calls intuition pumps. These intuition pumps are like thought experiments, but they are designed to provoke a strong intuition that makes us believe it as a fact. His justification for using intuition pumps to disprove qualia rather than rigorous arguments is that rigorous arguments are meant for well-defined objects or phenomena. For something like qualia, about which nothing can be said, intuition pumps are the right tool to deal with something which is itself a strong intuition.

According to Dennett, qualia are:

Ineffable- It is not possible to speak about qualia because it is a subjective notion.

Intrinsic- Qualia is inbuilt into our minds right from birth.

Private- It cannot be shared or transferred to any other person. It is private for the self.

Directly apprehensible- it is the first and immediate apprehension of experience. (Dennett, 1995)

And even if these properties can be denied, Dennett says that qualia are the phenomenal aspect of the experience at least. He borrows Shoemaker's notion of qualia: "the qualitative or phenomenal features of sense experience[s], in virtue of having which they resemble each other and differ from each other, qualitatively, in the ways they do" (Shoemaker, 1982, p.367).

There are intuition pumps that bring out the strength of this thought. Even if everything perceptual, functional, and physical is removed from a sense experience, there is a residue. There is something to undergo that experience that cannot be accounted for by any functional or physical system.

1.2 Against Dennett

Dennett agrees that there is conscious experience, and like any real thing, conscious experience has properties. What he is not willing to accept is that these properties are special in any way. What does he mean by special, he explains through intuition pumps in the rest of his paper. What he wants to prove is that there is nothing like qualia if qualia are the phenomenal character of experience that is ineffable, intrinsic, private, and immediately perceptible. He provides intuition pumps in place of argument, justifying the act by saying that rigorous arguments work on only well-defined material. Although how intuition pumps are going to prove or disprove anything is a big question. His main line of the argument lies around the claim that people are mistaken about their own qualia. He says if qualia are subjective, then they should be accessible to the subject, but through various thought experiments, he shows how this is not the case. The whole question arises from a misunderstanding of the term phenomenal and the characterization of this phenomenal character of experience. To begin the discussion, for now, let us take the phenomenal character to mean what Nagel meant by it. There is something it is like to be in a mental state of experiencing an event. Let us not assume for now that it is private or ineffable, or intrinsic. In the spectrum inversion thought experiment and its variants, Dennett shows, in both inter-personal and intrapersonal spectrum conversion cases, we cannot put a finger on what shifted to give different qualia and how it shifted. Was the shift through an optic nerve or in the memory-access links? How do we verify anything about qualia? And if it is not verifiable, it is as good as fiction. We cannot verify anything about qualia because the sole authority on qualia, i.e., the subject herself, does not know about her qualia. Examples of two coffee

tasters, Chase and Sanborn, prove that although they both acknowledge that they don't like maxwell coffee anymore, chase says the reason is that his taste has enhanced. Whereas Sanborn believes there is something wrong with his perceptual apparatus. And then, if they are to be taken for their words, the qualia statements become empty, like – I know how tall I am. It is neither wrong nor right. It is vacuous and meaningless. There is no content in qualia statements then. "Properties in one's experience one cannot in principle misdiscover" (Dennett, 1995).

Dennett discusses two cases of coffee tasters not because he wants to make a point on interpersonal qualia shift but because it is easy to show elucidate intrapersonal shift taking two different cases. One of them is Chase. For six years, Chase has been a coffee taster. For Chase, the maxwell coffee was the best-tasting coffee. Chase compares coffee samples every day to have consistency in the taste. Yesterday he had T1 qualia of tasting coffee. Today he had T2 qualia. According to Dennett, for the consistency of the coffee, T1 must be the same as T2. There are a few things worth noting in Chase's case.

i) There is a knowledge of the consistency of the coffee.

ii) There is a reactive attitude towards the taste.

iii) Finally, there are the qualia of tasting coffee.

Coffee tastes the same to chase. But that does not say anything about the qualia of tasting the coffee being the same every time. Qualia of an experience repeated many times is not the same. It's not a switch that turns on whenever Maxwell coffee is experienced. Qualia is what it is like to experience coffee. Later if it becomes a memory unit and data from similar experiences is used to compare it, which leads to confusion of the given kind, it does not prove that there are no qualia.

Another problem Dennett has is the verifiability of the qualia statements. Even if chase claims that his qualia of tasting the coffee are the same, but his taste has enhanced, are we to take it as the case? Dennett says it renders qualia statements meaningless. There is no way of verification of statements about subjective experience apart from the subject's testimony. Given how qualia are defined, no comparison of qualia is possible, even with perfect technology. Hence there is no way to verify qualia. What Dennett has a problem with is not qualia itself but how to verify anything about qualia. The nature of qualia is such that it does not leave any scope for explanation and verifiability. This illusion is created because qualia are taken as a bundled package of whatever can be incorporated into 'what it is like.'

Verification method for a subjective concept

When Chase says Maxwell coffee tastes good, I can imagine the taste of good coffee. My qualia of good coffee are not the same as Chase's qualia of good coffee, but still, we are able to talk about it. I have an idea of what a good coffee can more or less taste like to Chase. What gives me this idea? What gives me any idea of any qualia of anyone other than me? How am I able to operate in a world where according to the concept of qualia, I was supposed to be locked in my head?

We have to agree at least to the proposition that we have an idea about other people's qualia. I know what it is like for a person to see red. The next question is, what gives rise to this idea that qualia are subjective? Either there are no qualia, as Dennett claims, or qualia are not subjective in the sense of it being private and ineffable. For the first possibility, let us look at what arguments Dennett presents.

There are two major arguments he presents against qualia.

i) How can one be sure of their own qualia and shift in qualia?

ii) What is the way to verify statements about qualia in order to make them meaningful sentences?

What is exactly this 'shift in qualia'? If I drink coffee in the morning and have a qualia T1 and suppose, due to some reason, I have a changed qualia of drinking coffee with the same proportions and preparation, say T2. What possible scenarios can there be of the shift in qualia-

i) I am continuously having a qualia T1 of an event E, assuming there is no change in the event. Then one day, I have qualia T2 for the same event, E. How do I know that my qualia have shifted from T1 to T2? One way is that the reactive attitude towards T1 has changed. For example, I no more like what I used to like. But a change in reactive attitude can take place irrespective of any change in qualia or the event. So it cannot be a marker of a shift in qualia.

ii) Next, there is a possibility that I still find the coffee tasty. But there was something it was like to taste coffee T1; now there is something different in what it is like to taste coffee, which gives rise to T2. This shift seems unnatural. But consider due to some biological changes, you find your coffee more bitter. Event E hasn't changed. But other factors like biology cause this shift from T1 to T2. And I express that 'the coffee tastes more bitter to me today.' How does this raise a question on the reality of my qualia? Should having qualia of drinking coffee be the same always? Is it a presupposition in Dennett's conception of qualia?

iii) Now suppose I drink beer for the first time and have qualia T1, and I do not like the taste. After trying it for few times, I start liking the taste. Do I like the qualia of the first sip of beer, or do I dislike the qualia of the beer I drink now? None. A reactive

attitude has nothing to do with qualia. You can have different reactive attitudes at different times for the same qualia, as discussed. For better clarity of the situation, let's take the example of drinking orange juice first thing in the morning and again after meals. I drink orange juice first thing in the morning, and I find it sour. Then I eat something and drink orange juice again and find it less sour. If this presents any problem to somebody trying to conceptualize qualia, then probably the conceptualizing has some problem. Qualia is not a type but a token. Every experience can have distinct qualia. And qualia of orange juice in the morning can differ from orange juice in the evening.

iv) What role does memory play in the game of qualia? One significant point that Dennett raised through his intuition pumps was we leave out many factors like memory and see qualia in isolation. Should qualia be taken in isolation? Suppose I have a qualia T1 of eating an orange. This is later used by other modules of the mind for their respective functions and stored in memory. Again, it is a token T1. Whatever shifts in perception to give me a shift in qualia from T1 to T2 does not bring into question the reality of either T1 or T2.

Now the question is, how can one be sure of the shift in qualia? There are factors that affect our qualia, and they are in the number of hundreds for any experience that we have. What causes qualia to be T1 is not the question here. Whatever be the cause, I can be sure of my qualia T1. Whatever be the reason for the shift, I can again be sure of my qualia T2. And thus, I can be sure that my qualia shifted from T1 to T2. Although we say it has shifted in the linguistic sense of putting across the idea that there are different qualia for the same event, E. In reality, there is no shift. There is qualia T1, and there is qualia T2, and both are real. Whether T1 happened because

of x and it changed to T2 for an event E because of nerve damage or any other phenomena, the truth about T1 or T2 does not change.

The comparison of T1 in memory to T2 happening at present can be made, but T1 was for event E at time t1, and T2 is a different token at time t2. So, if there seems to be a change, then there is a change. It can be an illusion, as in hallucinations, but it is real to me.

This brings us to the next question: qualia, explained in this way, sounds like fiction. Qualia are not real. It is as real as the harry potter world concocted at the command of our imagination. If it is real, how do we verify its reality? The reality of the world is verified by objective accounts of its phenomena. There has to be a way of testing the hypothesis. I say I am having qualia of seeing water on the road. You say there is no water on the road, and thus, my experience doesn't match the reality of the outside world. Falsity can be assigned to my statement. If I can assign a truth value to a statement, then it has meaning.

If qualia are considered subjective in the sense of it being private and ineffable, then verifiability is a problem. How can I talk about the reality of something that only I know but cannot explicate? The next section explains these problems in detail.

2. Quine's Perceptual Similarity:

To understand what qualia is, it would be helpful to first look at Quine's notion of perceptual similarity because the major part of the theory of qualia is based on how qualia can be talked about if it is claimed to be subjective. Quine has talked about the innateness of the notion of similarity, which seems to be subjective, but there is a science possible for the same.

Quine weaves a story of 'stimulus to science,' which is one of his book titles as well. He wants to account for the similarity that one shares with others of the same species despite having different neuronal structures. Where does this similarity come from?

In his paper 'Natural Kinds,' Quine approached this problem with three tools which he talks about at length: Induction, kinds, and similarity. He starts by discussing the problem of induction. Why in the raven's paradox, a green leaf doesn't serve as evidence towards all ravens are black, which is logically equivalent to all non-black things are non-raven? Quine says it is because of the non-projectability of the predicate terms, non-raven and non-black. The same is the case with Goodman's paradox of grue. What happens in induction is there is an expectation of the upcoming event. This expectation is based on similarity. One learns about the red in a tomato, and the next time the expectation of red in another tomato comes from the similarity in the cases. Quine dwells upon similarity and kinds for long and in number of ways how their definition can be captured. (Quine, 1969)

Intuitively, similarities and kinds seem to come from one notion. But how to capture this elusive relation? What comes close to the notion of similarity is properties. Similarities are abstractions from properties. When there is a commonality between properties one assumes the property-bearing things to be similar. The mathematical concept of the set gives structure to this relation in question. Let's say two things are similar if they belong to the same set. But membership in a set happens in randomness. There is no necessary property criterion for two things to fall into one set. Properties, hence, cannot be captured by the concept of sets. And thus, the notion of similarity also can't be captured by the concept of sets. Also, there is a very evident difference in properties being intensional and sets being extensional. Properties derive meaning within themselves from their content or structure, whereas sets derive meaning from their members.

On the other hand, kinds are closer to the concept of sets because kinds are also extensional. But the relation between kinds and sets is not all-encompassing. Another factor is similarity has degrees to it. A thing can be similar in less or more degree to another. This leads to the implication that the kinds must then overlap or even contain other kinds. For example, a round thing is a kind contained in kinds of shapes. So, a thing can be similar to another in a wider sense of it being shaped and also in a narrower sense of it being shaped round.

We move from a single operator of similarity to considering the similarity in a comparative sense so that it might give a conclusive definition of both kinds and similarities. What does it mean to say 'a is more similar to b than to c'? If 'a' belongs to a kind and 'b' belongs to the same kind, a,b,c could belong to a bigger kind and then the comparison of similarity won't make sense.

Let's suppose there is a norm around which there are similarities in properties of the things and norms. A shade of red can be a central norm, and similarity this way is defined by hit and trial of common or matching shades to certain degrees. Carnap has defined kind in terms of such a set that contains this central norm and other similar things added. The problem with this formulation is when it comes to mixed similarities, the relation breaks down.

We have seen similarity and kind are intuitive notions, very fundamental to cognition but still far away from logical or mathematical concepts. To get a sense of where this would lead, it is important to first see how fundamental the notion of similarity is. While learning about a colour, a child is ostensibly shown the colour. Repeated instances make the child learn the colour. But this wouldn't have been possible if the child did not have a sense of similarity already. It shows that even when high functions of intelligence are absent in children or early humans, there still is a fully functioning workable notion of similarity. This shows that the notion of similarity is, in

some sense, innate in us. As Quine would call it, there is a "prior spacing of qualities" (Quine, 1969). This knowledge about spacing cannot be learned by themselves. If they are not themselves learned, then some of them must be innate. Now, expectation in an induction depends on this spacing of qualities. Hence, it depends on similarity. There are more steps to reaching that conclusion though. Ostensive learning may be a case of induction, but how is it similar in all humans? How is one's spacing of qualities similar to other people? Induction is made strong through repeated successful expectations. Here Quine brings in Darwin. He says as primitive beings, we tried hit and error and made the inductions stronger. These inductions were a result of interacting with the environment. Through natural selection, species that had good predictability power of the environment survived. This way, induction became a tool to access the truth of nature. This intuitive notion of similarity, on which inductions were based, was passed on to generations in evolution. This can be comprehended as a "gene-linked trait" also. There are regularities in nature, which is out of the question. And hence there are regularities in our perception as well. Quine calls it 'perceptual similarity.' Thus, the innateness of the notion of similarity improves with experience. The argument goes:

P1: Induction is instinctive.

P2: Because the standard of similarity of perception is instinctive

P3: Perceptual similarity improves with experience

P4: Expectation in induction has better success rates than a random guess because of the above reason.

P5: Above is the case because of natural selection- standard of perceptual similarity is in fit with the environmental changes.

C: Therefore, we have uniformity in people's quality spaces.

This is what Quine has called pre-established harmony by natural selection in his paper 'Three Networks: Similarity, Implication and Membership' (Quine, 2000). One point to note is that for a given same stimulus, the perception person X has is not the same or even similar to the perception person Y has. This is not the kind of similarity Quine talks about. The neural setup of each person is different. And how the stimulus is processed would definitely be different. Suppose on seeing the color yellow, X has a perception A, and Y has a perception B. On seeing the color yellow for the second time, X has C perception, and Y has D perception. Here perception A is not similar to perception B. What Quine is claiming is that the innate structure of how perception is received is similar, which implies A will be equal to C, whereas B will be equal to D. Perceptual similarity makes habit formation possible. The notion of similarity is what is innate.

Patricia Churchland's objection (Churchland P., 1976):

Patricia Churchland has attacked the notion of Quine's perceptual similarity in her paper 'How Quine Perceives Perceptual Similarity. 'Her argument is that when more than one property of a thing is taken, the explanation of the notion of similarity using perceptual similarity breaks down. She shows the problem as follows:

Suppose there are kinds like red ball(b), red shawl(c), yellow rose(d), and white rose(e). If one is given a red rose, which kind would it be more similar to? Would it look for similarity in redness or in rosiness? As there are two ways of going about it, which one is more favored by perceptual similarity and why? The red rose is perceptually more similar to a yellow rose in one respect, whereas more similar to a red ball or shawl in another respect. The word 'Respect' here is a

loaded term and conveys one's frame of reference while comparing similarities. Now consider this: a is perceptually similar to b, denoted as a#b. # stands for the relation 'perceptually similar to.' Now a being the red rose, a#b > a#d in respect of redness. But a#d > a#b in respect of rosiness. One should ensure asymmetry of relation 'perceptually more similar to' in order for perceptual similarity to work as an explanation of the innateness of the notion of similarity. Even if we spread the kinds and consider the receptual neighborhoods, the problem of lack of asymmetry of relation 'perceptually more similar to' poses as a problem. Quine has alluded to the problem himself by borrowing Goodman's phrase "difficulty of imperfect community". As mentioned above, he gives the example of red round things, red wooden things, and round wooden things. Each member of the kind is similar to others in some sense. But Quine dismisses Patricia's attack saying once the definition of similarity and kinds is worked out for even a single general standard of comparative similarity, the problem of respects is just an abstraction of the similarities in question.

Analysis of the problem:

The explanatory relevance of an explanation comes from the discrimination of explanation against explaining something to be the case rather than something else. Perceptual similarity should be able to do exactly that. It should provide ground to explain why one, in a dispositional sense, perceives a more similar to be rather than to c; and not allow statements like a is more similar to c than b in some other respect. The notion of 'respects' has to be removed from the talk because Quine claims that the notion of similarity is very fundamental to our cognition, and thus it cannot depend on respects. Because then one is not talking about the innateness of the perceptual similarity. However, Churchland's objection of the lack of asymmetry holds. One response can come from looking at how properties superimpose on each other. Let's say a rose

has properties of redness, fragrance, rose shape, etc. there are kinds corresponding to these properties, red things, fragrant things, rose shape things. But properties have some kind of resonance with each other. If we can think of properties like rosy redness and rosy fragrance, then there would be corresponding kinds to them. These are single kinds that have two properties superimposed.

Gary Ebbs has written on the problem which is worth noting here. There are two notions to be paid attention to. Intersubjective similarity and stimulus meaning. Intersubjective similarity is the dispositional perceptual similarity among the subjects, humans, and stimulus meaning is the perception of sensory stimulus irrespective of disposition to behave towards it. It is a question of much concern how intersubjectivity happens when the nerve endings are etched differently for everybody (Ebbs, 1994). There is an example given by Quine in his paper, 'Three networks,' that when a bunch of bushes is cut into the shape of an elephant, the bush structures don't match with each other, but the shape does (Quine, 2000). The same is the case with the neural structures and the structural outcome of the stimulus. Of course, it depends on the physical neural network. But the structure of perceptual similarity has evolved with the need to fit into the outside world. The existence of language is proof of this theory. Natural selection is the reason why perceptual similarity came into being in the first place. The observational sentence of the intersubjectivity holds the same meaning as the stimulus meaning. One can notice that for both, then, the propositional content is the same. This is similar to Wittgenstein's picture theory of the world and mapping of the state of affairs outside of the state of affairs in the sentence. Although he talks about language here, and moreover, Quine would refrain from accepting any mentalistic construct, the idea seems to be similar behind both claims. Quine has responded to Ebbs's review

of the paper 'pursuit of truth' that intersubjectivity is the pull of the outside world on the anatomical structures of the mind, which imposes objectivity of the world on the private stimulus meanings giving rise to perceptual similarity, which is shared by the species.

Quine on dissolving similarities and kinds-

Quine to shows how for more successful inductions, our intuitive notion of similarity and of kinds has to dissolve. Quine explains this as follows. As explained earlier, induction is the prediction of the next event based on the similarity of the previous ones. A good prediction goes a long way in the survival of the species. Thus, evolution pushes such a trait in the species. Induction is about the outer world, and the changes in the outer environment are accommodated in the induction by learning from multiple such instances. It is a dynamic, ongoing process. Every successful induction strengthens the chances of survival. Organisms survive through natural selection based on the condensed form of induction inculcated in the form of an innate trait for the next generation or the generation after that. The notion of similarity and kind are such fundamental notions on which induction works. This innate notion of similarity is thus supported and encouraged by natural selection. This is why the notion of similarity feels intuitive uniformly across the human species. Now special sciences have refined their induction by employing modified systems of kind. A primitive standard of similarity is intuitive but not necessarily accurate. It is functional in the respect it is meant for a function. For example, the similarity between chromatic perceptions helps us navigate the world, and thus perceptual similarity serves its purpose here. But in sciences like chemistry, scientists have been able to find out an accurate and concise definition of kinds. They are distinguished based on atomic numbers here. Thus, any property, like solubility, can be explained in terms of the atomic structure of molecules rather than arbitrarily going on about what seems intuitive (counterfactual conditional

like: "If this were in the water, it would dissolve"). These theoretical standards have better categorization and hence better-structured kinds and thus successful inductions. Quine says, "Once we can legitimize a disposition term by defining the relevant similarity standard, we are apt to know the mechanism of the disposition, and so bypassing the similarity" (Quine, 1969). In a mature science, the dissolution of the notion of similarity is desirable for further successful inductions and better survival chances through evolution. As of now, such precisely defined kinds exist in different special sciences in their context. However, one can hope to capture a universal yet precise definition of kinds.

What are qualia?

I have mentioned in the previous section that qualia T1 of an experience at t1 is a token. It is different from the token of qualia T2 of the same or similar experience at t2. What is a token?

Every sense experience has perceptual data received from the outside world. This perceptual data is packaged into a token. For example, we listen to a sound. The sound waves are the perceptual data that the perceptual apparatus of our body captures. The sound waves themselves do not have the property of being heard. The property of hearing lies in our body. The anatomy of the ear is as follows: the ear starts on the outside, followed by an ear canal towards the inside, which in turn is followed by the eardrum, three small bones in the middle ear, cochlea, and finally hair-like projections on the cochlea. The sound wave creates vibration in all the parts till cochlea and the hair-like projections release the chemicals, which create electric signals by rushing through the cells. These electric signals are carried by the auditory nerve to our brain, which changes it into a sound that we are able to hear. It is the same old question of how electric firing creates visuals or sounds that we see or hear respectively. But there is more to it. The perceptual data is

modified in a way that we are able to hear a recognizable and understandable sound. As discussed earlier, recognizing, differentiating, and finding similarities, i.e., having refined kinds, improves with repeated instances of experience. Perceptual data flows in the physical auditory apparatus, tokens are formed from these captured perceptual data which have the phenomenal content of the experience.

The token:

A token has phenomenal content of an experience. Every experience generates a different token. The qualia of drinking orange juice first thing in the morning are different from the qualia of drinking orange juice after meals. The former tastes sourer. The phenomenal content is felt due to the packaging of the perceptual data in a certain way. This 'certain way' is structural in nature. There is nothing contradictory here to pose a problem over the statement that phenomenal consciousness has a qualitative aspect of the experience. What it is like to go through an experience is about the 'raw feels' of the experience, but also the experience is had because the perceptual data is packaged in a certain way for our mind to receive it. One might confuse structural with functional. A functional system has a systemic structure through which the functional roles are carried out. But it is not necessary that every structural entity is functional. Functionality is different from the object being itself.

Token is not a notion same as a concept. The notion of concept in the philosophy of mind generally occurs in the representational theory of mind. The representational theory of mind treats propositional attitudes like belief as a relation between the person and her mental

representations. These mental representations form a part of the internal system of representations. The complex representations are made of some basic representations which have "language-like syntax" (Margolis, Eric, and Stephen Laurence, Concepts, SEP). These are concepts. Concepts are the building blocks of thoughts. The token contains phenomenal content. Take the example of drinking orange juice. The qualia of drinking orange juice consist of the visual, auditory, and gustatory quale. These together form the qualia of the experience of drinking orange juice. What it is like to taste orange juice is not conceptual in the sense that it has only representations playing a part in their internal system. concept is more linguistic in the sense of 'language of thought' (Fodor, 1975), whereas what we are talking here about the token is more about the phenomenal content. Phenomenal content can be representational in the sense that it can be about something (This will be better explained in the next chapter). But it is not a representation, per se.

The type:

The tokens are structurally compatible with the type they belong to. Type in its general sense lies near the general notion of universals, sets, or kinds. Here, I use the word type in a particular sense. Type is an entity to which tokens attach themselves according to their structural compatibility with the type. There are many different kinds of types, and they are sometimes in hierarchical relation with other types. It would be helpful to understand types as a notion similar to Quine's perceptual similarity (Quine, 1969). Type is acquired by humans through many hits and trials to make the inductions stronger. Natural selection favored this trait because it was useful in survival.

Type is not a relation. Relation involves at least two entities for its coming to existence. Relations form a set of ordered pairs. Type doesn't require two entities; it is a stand-alone entity.

Type, like the similarity, discussed earlier, is not a set. A set is extensional. It derives its meaning from the members of the set. But type is not extensional. The set of students in class is S1, and the set of students in class except student x is a set S2. S1 is not equal to S2. But the type Taste of orange juice T1 will remain T1 even if a few instances of drinking orange juice are removed. This has been explained well in previous sections of this chapter.

Type cannot be understood as a universal. The notion of universal is prevalently surrounded by debates. There are many senses in which the notion is treated. One general sense is universals are what properties refer to, like redness or softness. There are instances of universals called particulars. Type is not a property. A property may have degrees to it when it partakes in an appearance in particular. A type is an abstract object. In a red ball, the redness and the ballness are two different universals. But in the taste of orange, the type consists of no fracture of two types. There may be different tokens belonging to the type of taste of orange, but the type is one unit consisting of many phenomenal contents.

Relation between type and token:

i) The token attaches to the type through structural compatibility. Token and type share a relation. But the general notion of phenomenal consciousness is that it is not relational. I would like to point out that a token has the phenomenal content and the structure to attach to type, and it has a relation with type in this sense, but it is not related to any other entity or module of the mind. So, it is relational but only in terms

of type. It is not even related to tokens of the same type. They are not directly accessible to any entity other than type.

ii) The word attaching is used to make sense of the interaction between the token and type. A type is an abstract object, but it has underlying physicality, which is explained in the section on Quine above. A token is also an abstract object which has underlying physicality. It is an interaction of two abstract objects in a way one is contained in the other (explained more later in chapter 3).

iii) Can there be a token without type? We cannot experience the world the way we do if the token doesn't fit into a type. The existence of fundamental types, like identifying similarity, doesn't depend on the existence of a token. Having said that, there are new types formed for new experiences that we have. This builds on the already underlying structure of fundamental types. This is what makes evolution possible. The structure of the token resonates with the structure of the type.

iv) All the operations of the mind happen upon the structure. The accessibility and comparison and other function an agent has to fulfill in order to survive and thrive is done on the types. Types are accessible and used in functions. The token takes part in it indirectly. The token is just phenomenal content with structure. It is accessed through the type.

v) Types can become the content of states. They can assume functional roles. They can be used in higher-level mental activities like thoughts.

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Phenomenal consciousness is innate and subjective:

The innateness of phenomenal consciousness is biological and shouldn't be understood in the classical sense of the word. As explained in section 2, the structure we have in our minds, which

helps us perceive the world, is a product of evolution. The training of the mind over numerous trials and forming of better inductive knowledge happened through the biology of the brain.

The subjectivity of phenomenal consciousness comes from the inaccessibility of tokens directly. This will be explained in depth in 3rd chapter.

2. Phenomenal consciousness is not Reducible to Access consciousness

To see whether phenomenal consciousness is reducible to access consciousness, we have to look at two things: the kind of reduction possible and the proposed difference between phenomenal consciousness and access consciousness.

Searle has distinguished five kinds of reductions: ontological reduction, property ontological reduction, theoretical reduction, logical or definitional reduction, and causal reduction. (Searle 1997, 69-80).

For consciousness, only two notions of reduction have to be considered, i.e., ontological reduction and causal reduction. Theoretical reduction is the reduction of one theory to another such that the "laws of the reduced theory can (more or less) be deduced from the reducing theory" (Searle 1997, 69-80). Logical reduction is the possibility of translating sentences about an entity into sentences about another entity. Both these types of reduction are secondary in the sense that they are about the language used to describe reduction and not the entity itself.

2.1 Ontological reduction:

Ontological reduction is the reduction of one entity shown to be consisting of the reducing entities. A reduction of one entity to another is possible if the reduced entity is the whole made of the parts it is reduced into. It is a simple operation of breaking down things into smaller parts in order to understand the whole. One variation of ontological reduction is the property ontological reduction, where a property is reduced to another because the former is 'nothing over and above' the latter property.

2.2 Causal reduction:

It is a reduction of the causal power of an entity to the causal power of another entity. If x has the causal power to produce y, and y, in turn, has the causal power to produce z, then; z can be reducibly explained in terms of the causal power of x. This way, even causal reduction is an offshoot of ontological reduction. The reduced entity is explained in terms of the entity it is reduced into. For example, lightning can be explained in terms of electrical discharge. The former phenomenon is explained in terms of the latter phenomenon, but the explanation is about the phenomena. An explanation only bridges the ontological reducibility between the two phenomena. Reduction of the explanation of reduced to explanation of the reducing phenomenon corresponds to the respective phenomena itself. They have an underlying ontological reduction to support a reduction in explanation.

Now, the question is: Can p-consciousness be reduced to a-consciousness? To answer this, we need to look at how Ned Block has defined these terms. Next, can p-consciousness be reduced to a-consciousness ontologically or causally?

Consciousness encompasses many notions like alertness, awareness, functionality, and phenomenal quality, among others. Amidst these notions, it is natural for the philosophers of mind to have debates about consciousness. Ned Block claims that confusion arises because consciousness is treated as one notion but is comprised of two different types of consciousness. Hence, he distinguishes two types of consciousness: phenomenal consciousness and access consciousness. He has taken various examples to show as well as defend the distinction. His description of p-consciousness is different from what generally is understood by the term phenomenal consciousness. For him, p-consciousness is synonymous with experience. Its content is experiential; its state and properties are experiential. In addition to this, he claims that p-consciousness is often representational. A-consciousness is necessarily representational. And it is not because of the content type that a-conscious state becomes a-conscious but by virtue of it being accessed. P-conscious state is p-conscious only because of the content type. The difference has been deeply discussed further in the following sections. For now, let us use the working definitions of p-consciousness and a-consciousness. (Block, 1995)

2.3 Argument Against Causal reduction:

As explained earlier, an entity is causally reduced by explaining the causal power of the entity in terms of the causal power of another entity that caused it. Solid objects are impenetrable. Solidity is the effect of the vibratory movements of molecules in the lattice structure (Searle, 1997). The impenetrability of solid objects can be explained in terms of molecule movements. If p-consciousness has to be reduced to a-consciousness, then the feeling of what it is like to be in a state has to be explained in terms of the state being accessed by other states of the system.

Take the experience of eating an orange. It is something like eating that orange. Let us call it mental state M1. M1 is just an appearance if we see it analogous to solidity. As things appear to be solid by virtue of their internal structure, so do things that appear a certain way to our mind by virtue of how our mind functions. Functionalists claim that the existence of M1 is the effect of the causal power of the functional system of the mind. And thus, it can be reduced to the property of being accessed.

i) First, it is assumed by the functionalists that what it is like to be in a state is just a property of the mental framework of physical phenomena and their function. This forms a premise in their argument for the reduction of what it is like to be in a state to the functional roles and specifically functional states, which in turn can be explained by the physical processes of the brain.

   But in the case of solidity, everything about impenetrability can be explained in terms of the object being solid and why it is solid. The underlying reason is that there is a micro theory of molecules to support the causal explanation of its macro phenomena. These micro and macro phenomena are bound by some sort of law or generality (Hempel and Oppenheimer, 2008). However, in the case of phenomenal consciousness and brain process, we do not have any such law to bind the macro phenomenon of phenomenal consciousness to the micro phenomenon of neural activities. It is the case of a lack of either a micro theory for p-consciousness or a law binding the available micro theory and p-consciousness or both. Whichever be the case, the outcome is that it cannot be proven that p-consciousness is reducible to brain functions or even brain processes.

ii) Second, what about the claim that a-consciousness causes p-consciousness? It is by virtue of being aware of the p-consciousness of an experience that the p-consciousness of experience is felt. Even if we deny the stronger version of this claim that a-consciousness causes p-consciousness, one is tempted to accept that a-consciousness is temporally and logically prior to p-consciousness. P-consciousness depends on a-consciousness to be called conscious at all. However, the problem with this claim is the same as the problem with the sentence, 'I know that I know that I know….'. This can go on *ad infinitum*. Similarly, I can say I have an awareness of x; I have an awareness of awareness of x, and so on. There is no point at which it can stop. Having an awareness of x presupposes you have an awareness of your awareness of x.

iii) Third, if a-consciousness is just the property of being accessed, how can a property of being accessed give rise to what is being accessed? What exactly will be accessed without the phenomenal content? The question leads to an obvious answer that one has to look at the ontological difference between p-consciousness and a-consciousness to see whether the former can be reduced to the latter. We see here that p-consciousness cannot be causally reduced to a-consciousness

2.4 Argument Against Property ontological reduction:

Before we move to ontological reduction, there is another claim that can be made that p-consciousness and a-consciousness are two properties of a substratum. The nature of the substratum is not in question here. Let us assume there is a substratum, of which p-consciousness

and a-consciousness are two properties. If p-consciousness is to be reducible to a-consciousness, then p-consciousness has to be supervenient on a-consciousness. This means that any change in a-consciousness would change p-consciousness. But what would amount to a change in access consciousness? There is either a complete change of a-consciousness becoming not a-consciousness, or there is a change in the type of it being accessed content. As the content of a-conscious state is just the awareness of other content, no types can be assigned to a-consciousness. So, we are left with the scenario where if there is no access consciousness, there would be no p-consciousness. Block grants that "A feature of p-consciousness that is often missed is that differences in intentional content often make a p-conscious difference" (Block, 1995). But not all cases of p-consciousness differ when there is a difference in a-consciousness. Block gives the example of an epileptic seizure where the uncontrollable jerks cannot be accessed and hence controlled, but the p-consciousness of the experience is present.

2.5 Argument Against Ontological reduction:

I will go back to the descriptions of p-consciousness and a-consciousness provided by Ned block to see what is the ontological status of the two.

There are two noteworthy points Block makes in his paper-

i) "…differences in intentional content often make a p-conscious difference." (Block,1995)

ii) P-conscious properties are distinct from cognitive, intentional, or functional properties.

This sounds controversial, as Block himself points out the same. Let us have a look at the distinction he makes between p-consciousness and a-consciousness.

i) The first difference is between p-conscious content and a-conscious content. P-conscious content is phenomenal. It has experiential properties like smell, taste, and pain. Although p-conscious content is phenomenal, it is also representational sometimes. There can be two aspects of phenomenal content. There is the phenomenal aspect, and then there is the representational aspect. And sometimes, both are present in the phenomenal content. What it is like to be in that state is given by the phenomenal content. They are representational in the sense that the sometimes experiences are of something. In this way, they are sometimes transitive and sometimes intransitive. Access consciousness is always transitive. Access-conscious content is a part of the reasoning, whereas p-conscious content is not.

ii) A-conscious states have representational content which is accessed by other systems, and by virtue of being accessed the state becomes an a-conscious state. In this way, a-conscious states are functional. P-conscious states, on the other hand, are not functional because even if they are representational, the representations cannot be accessed.

iii) There is a type of state which is p-conscious. But a-conscious states are a-conscious by virtue of their being accessible. It is in relation to the system that a state becomes a-

conscious. There is nothing inside the state that makes the state a-conscious. (Block 1995, 227-287)

There are a few problems with how p-consciousness and a-consciousness have been described and distinguished from each other here.

i) What does Block mean by representation? Mental representation means that there is a semantical structure that has content, semantic value, and references, among other things. Representational content is characterized by it being about a representation of something. What makes a state intentional is that it is about something. It is characterized by the word ‘that .'I believe that, I desire that, I imagine that, and so on. Intentional states are relations to mental representations. (SEP, Mental Representation). When Block says that phenomenal content can be representational, he means that it can be about things of the outside world. I perceive a rose, and this phenomenal content of what it is like for me to see a rose has a representation of the rose that I see. This way, the p-conscious state is sometimes transitive. The phenomenal content is just the feeling of what it is to see the rose. A phenomenal state is sometimes just the feeling of what it is like, and sometimes what it is like is accompanied by what it is about. What makes a state access conscious is just the fact that a state is accessible. It has a role in the functional apparatus. It is a functional state because it has a function that is acquired by virtue of being in relation to other states. There is no type of access-conscious content.

ii) To see the above theorizing of consciousness in a different light, what can be concluded is there are two types of content: phenomenal content with representation and phenomenal content without representation. They form the content of a state. States have

> two properties: either they are accessed, or they are not accessed. Accessed states are necessarily representational. This leaves us with the conclusion that all mental content is ontologically phenomenal. The representational phenomenal content is sometimes used in functions of the mind and sometimes not. Why have a distinct category for consciousness as access consciousness when all we are talking about is the property of the consciousness to be accessed or not accessed? Thus, there is only one type of consciousness, phenomenal consciousness.

All the stimulus we receive bring phenomenal consciousness about them. The phenomenal states then are either accessible or not accessible. If they are accessible, it happens through 'types'. In this whole process there is no state which becomes a state by the virtue of merely being accessible.

Possibility of explanation of phenomenal consciousness

The problem with explaining phenomenal consciousness is that it is subjective in nature. The phenomena in the outside world can be explained because they are objective. The phenomena of the outside world are true in the third-person perspective. The appearance of the phenomena can be separated from the objective facts of the phenomena. Reductive explanations are employed to explain the appearance and its reduction to fundamental particles and their activities. We have seen that reducing phenomenal consciousness to access consciousness is not possible. Neither

the reduction of phenomenal consciousness to the physical brain activity gives any solution to the explanatory gap of how consciousness comes about from the brain processes.

Consider these two sentences:

S1: There is water on the road.

S2: I feel there is water on the road.

Truth value can be assigned for S1 because it is an objective sentence. S2 carries the subjectivity of the subject, and although one can assign truth values to beliefs, it is difficult to imagine someone saying to the subject that her feeling is wrong. Saying what you are feeling is not the case is again in the direction of making objective statements. But it cannot be said that you are not feeling this way. A subject is the sole verifying means of its subjective experience. The question arises, how, for such claims can we have a method of justification or evidence? Science works on evidence and observations. Consciousness is closed to such 'outside' justifications and proofs.

In such a case, it seems impossible to have a science of consciousness. As Searle says:

"Science is, by definition, objective (as opposed to subjective).

Consciousness is, by definition, subjective (as opposed to objective).

Therefore, there can be no science of consciousness." (Searle, 1998)

Explanations:

Can we even have an explanation for phenomenal consciousness then? The general structure of explanation is that there will be an explanandum that has to be explained, and then there are

explanans that contributes to the explaining of the explanandum. All this lies in a chosen framework within which explaining happens. Take the example of tipping over of inkpot when one's knee hits the table on which it is kept. There can be an explanation of how the laws of physics applied to the given situation yielded an outcome of tipping over the inkpot. There can also be a simple causal explanation of how one hit the table, which moved the inkpot to the edge, resulting in its fall.

Robert Van Gulick has discussed various explananda that arise around consciousness. (Gulick, 1995):

i) What are the types of mental states? What is a conscious state? How is it different from the non-conscious state?

ii) What is it to be a conscious creature? What does it mean to be conscious? What are the parameters to decide whether a creature is conscious?

iii) Why is there a qualitative nature to experience? What are qualia? Where and how do qualia arise? How can qualia be accounted for?

iv) How is the experience of a unified self, possible? What are the conceptual organization, order, and connectedness in an experience?

v) The subjectivity of experience a subject undergoes.

This thesis deals with the explanandum about qualia and how it corresponds to the world outside. However, in doing so, one is confronted with the problem of subjectivity of qualia as it hinders any path through which qualia can be talked about, verified, and evaluated. Thus, the problem of subjectivity becomes a subsidiary explanandum that must be explained to have any explanation about qualia. Even if I am able to tell how I feel, how can we have a science of these 'feels'? We

need a system for observation, a system to test the observation, and a system for allowing justified statements.

I have experience of tasting an orange. It is my subjective experience that I cannot pass on to anyone else. I would not say I cannot share my experience. There are words using which I convey how I feel. What cannot be shared is the exact qualia token T1 of eating an orange with someone. But I can talk about it. What does that mean? It means that when I say phenomenal consciousness is subjective, it does not mean it is private. It means it arises from my first-person ontology.

Nagel's subjective-objective distinction:

Nagel claims that what it is like to go through an experience is irreducibly subjective. He denies any claim of possibility that phenomenal consciousness can be ever "analyzable in terms of any explanatory system of functional states, or intentional states" (Nagel, 1974). The phenomenological features of phenomena in the world can be reduced to physical underlying basis because in such objective cases, the phenomenological features are not under study, but the underlying phenomenon is under study, and it exists objectively no matter how we perceive it. In the case of the phenomenal character of our experiences, the study is about appearance itself. And thus, we cannot take away the subjective phenomenal character and look at it through an objective lens. He gives an example of bats. Bats are physiologically different from us, and their perception of the world is also different from ours. This gap of structural difference between bats and humans will not let it be possible for us to know 'what it is like to be a bat' (Nagel, 1974) ever. There is a subjective core to all our experiences. The world appears to us the way it does

because of this subjective core. As we move away from the core, the degrees of objectivity increase. When other things are concerned, a reductive explanation of a phenomenon is just a move towards more objectivity. It is possible to do so because there is more to the phenomenon than just the subjective experience of the phenomenon that we have. In the case of reduction of the subjective core to something more objective, the problem lies in the phenomenon being exhausted by the subjectivity itself.

Nagel believes that new concepts and methods must be devised to account for the subjective experience. The way science is done generally is not going to lead us to the understanding of what is this phenomenal feature of experience that we have.

Searle's conception of subjective-objective difference:

The problem sees some light in the conception of subjectivity by Searle. He makes a distinction between ontological subjectivity and epistemic subjectivity and; ontological objectivity and epistemic objectivity. According to him, consciousness is ontologically subjective because the very existence of consciousness depends on its subject. (Searle, 1998)

Epistemic objectivity: A sentence is known to be true irrespective of prejudices and opinions of people. Sentences in science are epistemically objective.

Epistemic subjectivity: A sentence is known to be true depending on the opinion, prejudice, and attitude of the person. Sentences regarding beauty are epistemically subjective. Epistemic subjectivity does not hinder the possibility of a theory or explanation of the concepts involved.

The concepts are ambiguous and not strictly defined as in science and hence lend up to subjective opinions of people.

Ontological objectivity: The mode of existence of the entity is objective. Everything in the world outside that we see is ontologically objective. Their existence does not depend on another subject.

Ontological subjectivity: The mode of existence of the entity is subjective. It depends on its subject, and without them, it cannot exist. Consciousness is ontologically subjective.

Searle claims that although consciousness is ontologically subjective, it can still be studied objectively because it can be studied through epistemically objective science. He gives an example to elucidate this: S1: "JRS now has a pain in his toe" (Searle, 1998).

He does not make it clear, however, how ontologically subjective pain is being talked about with epistemic objectivity. The sentence S1 has meaning. We understand what is being said when it is said that JRS has a pain. The meaning of the sentence is derived from the reference of the sentence. JRS has a reference for me in the outside world. His toe has a reference for me. But his pain has no reference for me to understand what exactly he is going through. If I do not have access to his pain, what am I understanding? How, then, is this a completely objective statement? One way to understand this is as follows:

Consider an animal that does not have the sophisticated form of language as humans do. If the animal is in pain, one can assume that other animals come to know about it through evident behavior. But animals can anticipate situations that most probably would cause pain. Not just for themselves but for others in the herd or tribe too. Mostly for their own offspring. This anticipation of pain presupposes the shared knowledge of what it is to be in pain.

The subjectivity of token and objectivity of type

As discussed earlier, a token has phenomenal content of the experience, and it attaches with type, which is accessible to other activities of the mind. In order to explain the subjectivity of our experience and look at a possibility of explanation for phenomenal consciousness, I am going to take this notion of token and type into consideration.

16
Let us say I have a visual experience of a red-colored object. A second person, call her Veena, looks at the same red object. My subjective phenomenal consciousness of the experience is different from her phenomenal consciousness of the experience. The token of the phenomenal content of my experience is myRedT1, and of Veena's is vRedT2. myRedT1 and vRedT2 are subjective and cannot be shared with anyone as tokens are different for each experience, even intra-personally. There is a qualia type of red objects. myRedT1 is the qualia of a particular red event under the qualia of red. myRedT1 is not shareable. But the qualia of red are shared. If qualia of red were to be un-shareable, we would not even know what one is talking about; not only Mary but everyone in the outside world wouldn't be able to make sense of the world. We call x red. How two people come to call it red is by putting similar colored objects saying x is red, so is y. We 'build' the notion of red. Because of the perceptual similarity shared by our species, we have a common structure to our perception. That structure is the type. The token is subjective, but the type is objective. The token is created by the subject, and it is subject-specific as well as subject-dependent. It has structural compatibility with the type. The types are objective, open to access, and operations. The comparison of token T1 in memory with T2 in the present happens through type. The recognition of patterns, similarities, etc., are the mental operations that take place on types. So, what is being accessed is the type.

One may still argue that tokens have phenomenal content, and they are not accessible. This renders phenomenal consciousness inaccessible, and thus the old problem of shareability, ineffability, and subjectivity of phenomenal consciousness persists. Token is part of the type in a way that it attaches to the type through structural compatibility. This structural compatibility shared between token, and type alludes to the commonality in their structure. By commonality, I mean that the structures have common points of merging. So, when the type is accessed, part of the token is accessed indirectly. Accessibility is not a binary action. It is not the case that something is either completely accessible or completely inaccessible. The contents of a token are partially accessible, and hence despite being subjective, it can be talked about. It is not ineffable.

Possibility of explanation

The scope to talk about phenomenal content opens doors to the possibility of its explanation. The explanation would have a structural model where one entity is explained in terms of another because the former is structurally embedded in the latter. The explanatory power lies in the structural relation of the two entities. This way, there is a possibility of an explanation of phenomenal consciousness.

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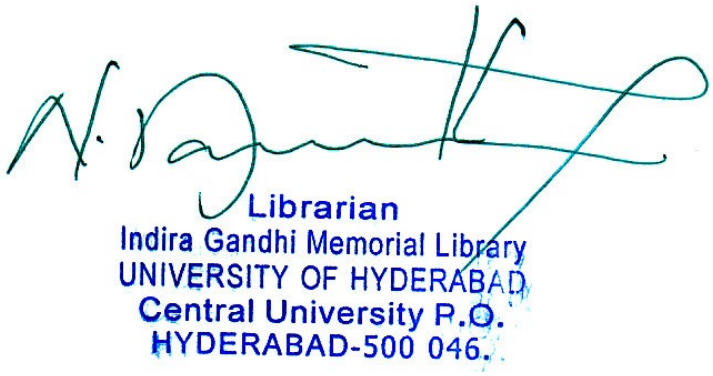
The Problem of Explaining Phenomenal Consciousness

by Shipra Shukla



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