EXPLAINING QUALIA

ARPITA SINGH

Introduction

Consciousness is at once the most familiar and the most mysterious aspect in our life. It is the very core of our existence yet it is very difficult to describe and explain consciousness. The word "consciousness" and "conscious" have been used in many ways. We talk of losing and regaining consciousness, of being conscious of one's appearance and of taking conscious decisions. The original meaning of 'consciousness' was awareness *or* knowledge. It is used to describe our state of awareness of our surroundings and self. Consciousness has been the subject of study of many diverse disciplines, though the study of consciousness is as old as philosophy. Despite of being the medium of all worldly knowledge and knowledge of inner self, consciousness still is an intractable problem. Consciousness has some features which make it puzzling, such as: subjectivity, phenomenality, intentionality, and qualia. For a conscious mind there is a subjective point of view, which is accessible only to the conscious being itself and can be known only from first- person perspective. So, self is subjectivity, which covers one's feelings, thinking and perception. David Chalmers has divided the problems of consciousness into "hard" and "easy" problems. The easy problems of consciousness are concerned with explaining the functions, dynamics and structure of consciousness as they are directly receptive to the standard methods of cognitive science, so the phenomena are explained in terms of neural mechanism. On the other hand, hard problem of consciousness is to talk about subjective experiences associated with physical mechanism or processes of brain. In other words, the hard problem is the problem of explaining the relation between physical phenomena, such as brain processes, and the subjective/phenomenal experiences associated with these physical mechanism or processes. For example, while watching the blue sky we experience visual sensation: the *felt quality* of blueness. These qualitative or phenomenal properties of experiences are named as "qualia", which is the heart of hard problems of consciousness. The phenomenal structure of conscious experience involves both sensory ideas and qualities and complex representations of time, space, cause, body, self, and the organized structure of lived reality in all its conceptual and non-conceptual forms.

Intentionality is the characteristic of consciousness whereby it is conscious of something-i.e., its directedness toward an object. The raw feelings of experience are known as qualia. Let us discuss the problem of qualia.

The Problem of Qualia:

The qualitative properties of our conscious experience are called 'qualia'. For example, when we see a rose in the sunlight; the way it looks to us- the particular, personal, subjective visual quality of the rose is the *quale* (singular of "qualia") of our visual experience at that moment. What it is like to be sad or happy, to have pain, etc. also are examples of qualia. According to Shoemaker: Qualia - the qualitative or phenomenal features of sense experiences, in virtue of having which they resemble and differ from each other, qualitatively, in the ways they do.[1] Thus, qualia are the properties of experiences what give each of experiences its characteristic "felt quality" and also what distinguish them from one another. Apart from above simple definition of qualia some philosophers have defined qualia variously on the basis of use of the term.

Historically, the term "quale" was first introduced by C. S. Peirce into philosophy in the context of phenomenal character of experiences.[2] The phenomenal character of an experience is what it is like to have subjectively in the experience. For example, let's consider our gustatory experience: there is something it is like for us subjectively to undergo the experience of tasting a ripe tomato. Now, this experience will be very different from what it is like for us to experience a ripe mango. This difference in experiences is often called 'phenomenal character'. While focusing on our experience we can figure out that phenomenal character of experiences has certain qualities, these are accessible by introspection and these together form the phenomenal character of experiences and known as 'Qualia'. C. I. Lewis in his discussion of sense-data theory used the term "qualia" as the properties of sense-data themselves. His notion of qualia is very close to the contemporary use of the term,

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[1] Shoemaker, S. (1982). "The Inverted Spectrum". *Journal of Philosophy*. Vol. 79, No. 7, p. 367.

[2] For detail see Crane, T. (2000). "The Origins of Qualia", In Tim Crane & Sarah Patterson, eds., *The History of Mind- Body Problem*, London: Routledge. <http:/www.timcrane.com> access September 30, 2020-09-30. P. 14.

though Lewis uses it in the context of sense data. According to the Lewis qualia are introspectible, intrinsic and non- representational features of sense data and other non-physical objects and these are responsible for their phenomenal character.[3] In the contemporary period, the term has been used in aforesaid sense, though it now refers more generally to properties of experiences rather than sense-data. Standard examples of experiences with qualia are perceptual experiences, bodily sensations, emotions, and moods. The philosophers like Thomas Nagel[4] and Ned Block[5] maintain this sense of qualia. But these interpretations of qualia as phenomenal character of experiences invoke the controversy: whether qualia, so defined, can be characterized in intentional, functional or purely cognitive terms. Opponents of qualia, e.g. Dennett, define the term in a restricted way in order to that qualia are intrinsic properties of experiences that are ineffable, nonphysical and 'given' to their subjects incorrigibly and thus nonscientific in nature: So, to summarize the tradition qualia are supposed to be properties of a subject's mental states that are:

a. Ineffable
b. Intrinsic
c. Private and
d. Directly or immediately apprehensible to consciousness.[6]

The philosophical question related to qualia is whether it can be or cannot be explained in scientific terms.

For some aspects of consciousness, it is relatively direct to see how they can be suit within a physicalist picture. For example, our abilities to access, report on, and attend to our own mental states. It is reasonable to presuppose that as neuroscience progresses and we learn more and more about the brain, we will be able to explain

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[3] For detail see Keeley, B. L. (2009). "The Early History of the Quale and Its Relation to the Sense", In J. Symons & P. Calvo, eds., *Routledge Companion to Philosophy of psychology*, London: Routledge. pp. 71-89.

[4] Nagel, T. (1974). "What Is It Like to Be a Bat?" in Ned Block, Owen Flanagan, and Guven Guzelder, eds., *The Nature of Consciousness: Philosophical Debates*, A Bradford Book. The MIT Press: Cambridge. pp. 519-527.

[5] Block, N. (1990). "Inverted Earth" in Ned Block, Owen Flanagan, and Guven Guzelder, eds., *The Nature of Consciousness: Philosophical Debates*, A Bradford Book. The MIT Press: Cambridge. pp. 677-693.

[6] Dennett, D.C. (1997). "Quining Qualia". in Ned Block,Owen Flanagan, and Guven Guzelder,eds., *The Nature of Consciousness: Philosophical Debates*. A Bradford Book. The MIT Press: Cambridge. p. 622

these abilities in terms of neural mechanisms. Aspects of consciousness that can be explained in this way are referred as the easy problems of consciousness by David Chalmers. But what kind of mechanism could give reasons for qualia? Though we strongly suspect that the physical system of the brain gives rise to qualia, we do not have any understanding of how it does so. The problem of accounting for qualia has thus become known, following Chalmers, as the *hard problem of consciousness*.[7]

Explaining Qualia

In this section we will discuss critically various arguments put forth to explain qualia. We will analyze four arguments such as, knowledge argument, inverted spectrum argument, absent qualia argument and explanatory gap argument as follows.

The Knowledge Argument

The knowledge argument is the most popular argument against the Physicalist explanation of qualia, given by Frank Jackson in his famous paper "What Marry didn't know".[8] The fundamental idea lies in the argument is that there is some knowledge about the experience that can be gained only by having the particular experience oneself. No physical knowledge of what goes in brain while having that experience would suffice to know the phenomenal character of the experience. Jackson presents the hypothetical case of Mary, the super colour scientist, who has spent her whole life raised in black and white environment in which she learns all the physical and functional facts about the colour vision. However, she moves outside for the first time and according to Jackson she learns a new fact: what it is like to *see* red. Thus he concludes what it is like to see red cannot be merely a functional or physical fact.

A wide variety of objections have been raised against the knowledge argument: Does Mary in fact learn new knowledge? What sort of knowledge does she acquire? Paul Churchland has raised three objections against Jackson's claim. First objection is that the knowledge argument contains the defect of "simplicity itself" and

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[7] Chalmers, D.J. (1995). "Facing Up to the Problem of Consciousness". *Journal of Consciousness Studies,* Vol. 2, No. 3, p. 201

[8] Jackson, F. (1986). "What Mary Didnt Know." *Jpurnal of Philosophy.* Vol. 83, No. 5: pp. 291-95.

argument carries an equivocation on "knows about".[9] Second objection made by Churchland is that knowledge argument is an exclusive argument in sense that it proves too much. So the argument works against both physicalism and dualism.[10]Paul's third objection is that knowledge argument claims that Mary couldn't even imagine what the relevant experience would be like, despite her thorough knowledge about neuroscientific functions, and so must still be missing certain crucial information.[11] David Lewis holds the view that Mary gains *know- how* (dispositional abilities), not *knowing- that* (knowledge of facts or propositions). Lewis negates the argument and gives the *ability analysis*, according to this, what Mary gains after leaving the gray environment is the only new practical abilities to recognize and imagine and remember the pertinent phenomenal properties of experiencing red.[12] But the ability reply doesn't seem plausible to many philosophers, as Van Gulick writes:

> ...and like many other philosophers I find that claim not very plausible. Part of what Mary gains is know- how, but that does not seem to be all she gains. There seems to be a fact about how phenomenal red appears that she apprehends only after her release.[13]

Here is a different and more strengthen objection to Jackson is raised by Loar and also supported by Van Gulick. Loar argues that what Mary acquires when she experiences red is a new phenomenal concept; a recognitional disposition that let her to distinguish a certain type of phenomenal feel (acquired discriminative abilities). This new phenomenal concept is component of veritably new knowledge, which is the knowledge of what it is like to see red. But this new concept adopts the old properties which are assigned by physical or functional concepts that she already had. So, difference is here nothing but ways of knowing: before leaving the room, her knowledge to see red was of third- person way; after leaving the room, she acquires a

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[9] Churchland, P. (1985). "Reduction, Qualia, and the Direct Introspection of Brain States". The *Journal of Philosophy*, Vol. 82, No. 1: p. 23.
[10] *Ibid*. 24.
[11] *Ibid.* 25.
[12] Lewis, D. K. (1983). "Postscript to 'Mad Pain and Martian Pain'," *Philosphical Papers*, Vol. 1, p. 131.
[13] Van Gulick, R. (1997). "Understanding the Phenomenal Mind: Are We All Just Armadillos? Part I: Phenomenal Knowledge and Explanatory Gaps". in Ned Block, Owen Flanagan, and Guven Guzelder,eds., *The Nature of Consciousness: Philosophical Debates* A Bradford Book. The MIT Press: Cambridge. p. 560.

new way (first- person way) of knowing the same fact.[14] Conclusively, what she gains does not eliminate any possible worlds that were not already obviated by the facts that she already knew, and knowledge argument sets no danger to physical doctrine of qualia. Eventually, recognitional disposition hints how qualia could come out to be relational: a relational physical state of the brain or even a functional state.

The Inverted Spectrum

The inverted spectrum argument is based on a thought experiment about two different people with behaviourally identical (including verbal) but different qualia; for example, I see 'red' the way you see 'green'. There is the possibility that the brain state that I have when I see red is the same as the brain state that you have when you see green, and vice versa. So, it might be said, our experiences are inverted. The assumption here is a supervenience doctrine that the qualitative content of a state supervenes on physiological properties of the brain. The possibility of inverted qualia sometimes objected on the verificationist grounds that we could never know that anything different is going on, so that there could be no real difference. Chalmers refuses the objection and says that the nature of qualia is not conceptually tied to behaviour.[15] To reply inverted spectrum Dennett uses intuition pump 4: *the brainstorm machine*. In the thought experiment one could report your visual experiences accurately with the help of some neuroscientific apparatus fits in your head and feeds your experiences in one's brain. Eventually we find that no intersubjective comparison of qualia is possible. As Dennett says:

> Designing and building such a device would require that its "fidelity" be tuned or calibrated by the normalization of the two subjects' reports- so we would be right back at our evidential starting point. The moral of this intuition pump is that no intersubjective comparison of qualia is possible, even with perfect technology.[16]

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[14] Loar, B. (1997). "Phenomenal States". in Ned Block, Owen Flanagan, and Guven Guzelder, eds., *The Nature of Consciousness: Philosophical Debates* A Bradford Book. The MIT Press: Cambridge. pp. 597-616. For detailed argument see pp. 598-600.

[15] Chalmers, D. J. (1996). *The Conscious Mind: in Search of Fundamental Theory*, New York Oxford: Oxford University Press. p. 264.

[16] Dennett, D.C. (1997). "Quining Qualia". in Ned Block, Owen Flanagan, and Guven Guzelder, eds., *The Nature of Consciousness: Philosophical Debates*. A Bradford Book. The MIT Press: Cambridge. p. 623.

Defenders of inverted spectrum move a step ahead and discuss about improved version of inverted qualia: *intrapersonal inverted spectrum*- in this version the experiences to be compared are all in one mind. Dennett describes this version in intuition pump 5: *the neurosurgical prank.* According to this thought experiment, evil neurophysiologists tampered with your neurons so that you have undergone visual colour qualia inversion. It has gone like, (1) you have normal colour vision. (2) Neurophysiologist has inserted colour inverting devices your retinas, now you see the grass has turned 'red' the sky 'yellow' and so forth. (3) No one else notices any colour anomalies, so the problem must be in you. (4) Conclusively you have undergone visual colour qualia inversion. Dennett attacks on this improved version in his intuition pump 6: *alternative neurosurgery* and concludes that intrapersonal, inverted spectrum is an illusion, since the link to earlier experiences, the link via memory, is analogous to the imaginary cable that might link two subjects in original version. Thus, according to Dennett, the result of this series of thought experiment creates a paradox of qualia: if there are qualia they are less accessible to our cognizance than we thought. Not only are the classical intersubjective comparisons impossible, but we can't say anything in our own cases whether our qualia have inverted (intrapersonal inversion); even not by introspection.[17]

Absent Qualia Argument

The absent qualia argument states that mental state can be type-individuated on the basis of the causal functional relation they bear to each other and to the inputs and outputs of the relevant system. Michael Tye characterizes the absent qualia**:**

> The hypothesis that it could be the case that a system that functionally duplicates the mental states of a normal human being has no phenomenal consciousness (qualia).[18]

Absent qualia argument establishes that any system could instantiate the functional state of any mental phenomena, for example- pain, without having any pain qualia. Ned Block initiated this objection to functionalism with the thought experiment of the homunculi- headed robot. This thought experiment appeals to oddball realization of our functional organization by huge human-duplicates (artificial

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[17] *Ibid*. 624.
[18] Tye, M. (2006). "Absent Qualia and the Mind-Body Problem". *philosophical Review*. Vol. 115, No. 2. p. 140.

brainless robot). If this China- body system can share our functional organization, then our functional organization cannot be sufficient for qualia.[19] Many critics face the difficulty to reply to case like China- body system and say that China- body system could undergo qualia. According to functionalist like the oddness of this view comes from our relative size. We are each so much smaller than the China-body system that we are unable to get a general understanding of whole system. Just like a creature the size of a neuron trapped inside a human head might well be wrongly persuaded that there couldn't be consciousness, so we also wrongly conclude as we contemplate the China-body system.

The Explanatory Gap Argument

The underlying idea of the argument is that neither anything known about brain nor anything for anyone has been imaginable that would explain the qualia. The basic assumption of the argument aims to show unintelligibility of materialism in respect to explain the phenomenal aspect of mind such as qualia, rather than proving materialism false. According to Robert Van Gulick explanatory gap argument's strength derives from the above intuitive appeal of its conclusion.[20] Despite of agreement on the issue that the gap is unclosable difference in attitudes towards the argument can be seen in philosophers (some has positive views and others have negative explanation). Colin McGinn argues that the essential nature of consciousness is not accessible to humans' cognitive capacities so the gap is unclosable:

> The problem arises, I want to suggest, because we are cut off by our very cognitive constitution from achieving a conception of that natural property of the brain (or of consciousness) that accounts for the psychophysical link. this is a kind of causal nexus that we are preclude from ever understanding, given the way we have to form our concepts and develop theories. No wonder we find the problem so difficult![21]

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[19] Block, N. (1978), "Troubles with Functionalism.", In David Chalmers, *Philosophy of Mind: Classical and Contemporary Readings.* New York Oxford: Oxford University Press, 2002. pp. 94-98.

[20]Van Gulick, R. (1997), "Understanding the Phenomenal Mind: Are We All Just Armadillos? Part I: Phenomenal Knowledge and Explanatory Gaps". In Ned Block, Owen Flanagan, and Guven Guzelde, eds., *The Nature of Consciousness: Philosophical Debates* A Bradford Book. The MIT Press: Cambridge. p. 563.

[21] McGinn, C. (1991). *The Problem of Consciousness: Essays Towards a Resolution*. Basil Blackwell Inc. p. 2

Joseph Levine holds the view that psychophysical statements assert such crude fact identities that those are unintelligible and they leave an explanatory gap that we have no idea how to fill.[22] Following the John Locke's seventeenth- century's approved claim that sensory qualia are arbitrary,[23] Levine attempts to support his point by appeal to a standard philosophical case of hypothetical spectrum inversion with red and green qualia switching causal roles in an otherwise normal subject. He concludes that the important suggestion here is that the basic ideas, such as colour qualia are simples. They have no structure and as each one is what it is *sui generis*, it is hard to see how their connection to anything could fail to be anything but arbitrary.[24] On the basis of aforesaid suggestion Gulick reconstruct a deductive argument form of the gap argument for consideration:

> Since qualia such as phenomenal hues are basic simples; they have no structure. Therefore: 1. Any links between such qualia and the organizational structure of their neural substrates must be arbitrary. 2. The links between qualia and their neural bases are unintelligible and present us with an unfillable explanatory gap.[25]

On the basis of this formulation of argument Larry Hardin replies that we must reject first premise of given argument. Hardin says phenomenal hues are not in fact such as *sui generis simples*, but rather elements within a highly organized and structured colour space. Any attempt to invert them *in undetectable ways* would have to preserve that structural organization. Moreover, the junction of organized structure among colour qualia renders the basis for establishing explanatory connections between them and their neural substrates.[26]

A number of philosophers argue that the unclosibility of the gap has nothing to do with nature itself, but it has to do with our concepts. They have contributed to

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[22] Levine, J. (1983). "Materialism and Qualia: The Explanatory Gap". *Pacific Philosophical Quarterly*, p. 357.
[23] Locke, (1690) *An Essay Concerning Human Understanding*, ed., Yolton, Everyman's Library, 1971, Bk. II, Ch. VIII, sec. 13, and Bk. IV, Ch. III. Secs. 12 and 13.
[24] Levine, J. (1983). "Materialism and Qualia: The Explanatory Gap". *Pacific Philosophical Quarterly,* p. 357 & 358.
[25] Van Gulick, R. (1997). "Understanding the Phenomenal Mind: Are We All Just Armadillos? Part I: Phenomenal Knowledge and Explanatory Gaps". in Ned Block, Owen Flanagan, and Guven Guzelder, eds., *The Nature of Consciousness: Philosophical Debates*, A Bradford Book. The MIT Press: Cambridge. p. 564.
[26] Hardin, C. L. (1988). *Color for Philosophers*, Hackett Publishers, Indianapolis, In. pp. 134-42.

produce the idea that reductive explanation in science depends on a priori analyses of the phenomena to be explained, ordinarily in functional terms. For consideration Chalmers gives the example of reductive explanation of life: life can be roughly analyzed in terms of such general terms as metabolism and adaption or in specific concepts like digestion and reproduction, and these concepts can themselves be given a functional analysis.[27] According to Chalmers to explain these functions, a priori, is to explain life itself. But in some case, for example water, the a priori analysis becomes more complicated. We can't give an a priori analysis of water as colourless, odourless liquid in rivers and ponds called 'water', because water might have colour and odour, there might have not been ponds etc. but we can formulate an a priori reference fixing definition of the sort that Kripke has underlined: Water $=$ R (the colourless, odourless liquid in rivers and lakes called 'water'), where 'R' is a rigid operator that turns a definite description into a rigid designator.[28] (A rigid designator takes the same thing in all possible worlds in which the thing exists.) The consequence is that closing the gap requires an a priori functional analysis of qualia. But if we choose qualia by their qualitative character then no a priori reference fixing definition can be given for the qualitative concepts of the sort that can be given for 'life' and 'water'. For example, pain$=$ R can be true and necessary without being a priori. And if the qualia inversion argument is right, there is no a priori conceptual analysis of qualitative concepts either, and so the explanatory gap is enclosable. As Chalmers points out that functional and physical account can explain only the functions associated with qualia. But there will be curiosity remain that why these functions are accompanied by qualia.

Conclusion

After a review of above arguments about qualia we can conclude that qualia still remain as the most baffling feature of consciousness. Knowledge argument creates the explanatory elusiveness of phenomenal qualities against the materialism, but despite of being appealing it fails to maintain it standpoint clearly and it falls out

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[27] Chalmers, D.J. (1995). "Facing Up to the Problem of Consciousness". *Journal of Consciousness Studies,* Vol. 2, No. 3, p. 203.
[28] Kripke, S. (1980). *Naming and Necessity*, Cambridge, MA: Harvard University Press.

to be weak in a wide variety of ways, so it couldn't defend itself from opponents. Likewise, the inverted spectrum and the absent qualia argument also fails in providing an inevitably insurmountable hurdle to functionalist doctrine. Talking about the explanatory gap we can conclude that it compels us to think that science of mind has not yet generates the required concepts to explain qualia. But the reductionists deny this, blaming the explanatory gap on our ordinary concepts, not on science. The opponents of qualia try to define qualia objectively but fail to explain qualia adequately. Neither they give it's any functional or scientific explanation correctly nor they get success to eliminate it. On the other hand, we can't say that proponents of qualia achieve their goal of explaining qualia accurately. So, in case of explaining qualia we are still at the same position where we start from. The quale is significant because as it is the properties of experience and these are the experiences which make a person an individual and separate human from other creatures and robots. Just because of qualia we can know 'what it is like to be a human'.