

The Concept of Consciousness in the Approaches of Different Scientists

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Abstract:

This article reflects the concept of consciousness in the approaches of different scientists in the history of philosophy. In this article, not only the concept of consciousness has been well analyzed but also revealed the notion of Consciousness in David Chalmers's philosophy.

This article has also discusses the concept of consciousness itself is not normally deal with as a considerable entity but purely the summary reification of whatever effects or characteristics is imputed to the related to use of the adjective "conscious". Approach of consciousness is merely the resource of having entailed style of inner means of approach connections, and valuable consciousness is purely the effect that is assigned to when "conscious" is appealed for the qualitative sense to rational situations. Most debates of philosophy of mind rely upon the idea of conscious experience on some level. Consciousness is highly debated issue and has also a central place in philosophy of mind.

Keywords: Consciousness, perceptions, self-consciousness, analyses, definitions, ability, to focus on, contemplation, awareness.

Introduction: Consciousness is the enormous secret in the many spheres of life. It could be the largest wonderful impediment in our investigation for a scientific understanding of the universe. Consciousness has different meaning; having of perceptions, thoughts, and feelings; awareness and so on.

The earliest English language uses of "conscious" and "consciousness" date back, however, to the 1500s. The English word "conscious" originally derived from the Latin *consciūs* (*con-* "together"

and *scio* "to know"), but the Latin word did not have the same meaning as the English word—it meant "knowing with", in other words, "having joint or common knowledge with another".¹

The philosophical literature on consciousness is quite unplanned and unsolved with seemingly independent strands talking about related problems without making contact with each other. The term is impossible to define except in terms that are unintelligible without a grasp of what consciousness means. Many fall into the trap of confusing consciousness with self-consciousness—to be conscious it is only necessary to be aware of the external world.²

Consciousness, at its simplest, is sentience or awareness of internal and external existence. Despite millennia of analyses, definitions, explanations and debates by philosophers and scientists, consciousness remains puzzling and controversial, being "at once the most familiar and the most mysterious aspect of our lives". Perhaps the only widely agreed notion about the topic is the intuition that consciousness exists.³ Consciousness is an intriguing but evasive circumstance: it is not possible to specify what it is, what it does, or why it evolved. Anything not worth reading has been written about it. The term "consciousness" is imprecise, referring to a number of happening. Sometimes it is used to refer to cognitive dimensions, such as the ability to introspect or to report one's rational issues. Sometimes it is cautiously tied to our ability to focus contemplation, or to voluntarily direct our behavior, feelings and awareness. Since 2010 or so, however, philosophical debates of attention have become more widespread, so it makes sense to discuss it in connection to consciousness, even if only briefly. Before the 1990s, "consciousness" was a term that scientists tried to stay away from it. It was considered as unscientific, as there was no respectable way to give it a satisfactory operational definition, i.e., it was difficult to give a definition that was grounded in empirical evidence. Back then, scientists studied attention instead, as it was easier to quantify it, or so it seemed. Empirical studies of attention have been fruitful since the 1960s. Now, although scientists tried hard to avoid talking about consciousness explicitly, it was not possible to ignore it entirely. For example, when psychologist Max Coltheart defines "visible persistence", it is hard to understand what we should mean by "visible" if it is different from "consciously seen," though there can indeed be other interpretations, such as "able to be seen." But one wonders whether that should mean "able to be *consciously* seen." Of course there are subtleties here; for example, Block further distinguishes between visible persistence and phenomenal persistence, which makes one wonder how to understand visible persistence exactly⁴. But in any case, before the 1990s or so, attention was widely studied by scientists, and in a way it served as a surrogate for consciousness, as attention is more scientifically respectable according to many.

The situation has dramatically changed. Nowadays consciousness studies are pervasive not only in sciences but also in philosophy. The reasons for this are complicated; it is not simply because nowadays consciousness can be better defined in sciences. Now the question concerning the relation between attention and consciousness arises: Are they identical? If not, how do they relate to each other? It is hard to maintain that they are identical, as there seem to be clear cases in which a subject, not necessarily a human subject, can focus its attention while being unconscious of the target. Perhaps that subject is a simple organism that is not conscious in the relevant sense, but arguably it has certain basic attentional capacities, i.e., they can deploy their cognitive resources to focus on specific targets. Normally the question is more about whether attention is necessary and/or sufficient for consciousness. Jesse Prinz argues for this strong view, and sometimes he comes close to the identity view. This view faces two basic challenges: Some have argued that attention is not necessary for consciousness; the phenomenological overflow view held by Block is one such view.

¹ Samuel Johnson A Dictionary of English Language. 1756.

² Roche, Philippe "Five levels of self-awareness as they unfold early in life" *Consciousness and Cognition*. 2003

³ The Encyclopedia of Diderot & d'Alembert Collaborative Translation Project. Translated by Scott St. Louis.

⁴ Block, Ned. 2007. "Consciousness, Accessibility and the Mesh between Psychology and Neuroscience." *Behavioral and Brain Sciences* 30: 481-548.

Some have argued that attention is not sufficient for consciousness; Robert Kentridge and colleagues have argued that the case of blind sight—patients who are blind in certain parts of their visual fields due to cortical damages—is attention without awareness, since these patients exemplify clear markers of attention, while the patients themselves also insist that they are unconscious of the relevant parts of the visual fields. Now, these are all highly debatable and there is much room to disagree. Both consciousness and attention are still heated topics nowadays, and will continue to be so in the foreseeable future.

The noun “consciousness” has an equally diverse range of meanings that largely parallel those of the adjective “conscious”. Distinctions can be drawn between creature and state consciousness as well as among the varieties of each. One can refer specifically to phenomenal consciousness, access consciousness, reflexive or meta-mental consciousness, and narrative consciousness among other varieties.

There were, however, many occurrences in Latin writings of the phrase *consciūs sibi*, which translates literally as “knowing with oneself”, or in other words “sharing knowledge with oneself about something”. This phrase had the figurative meaning of “knowing that one knows”, as the modern English word “conscious” does. In its earliest uses in the 1500s, the English word “conscious” retained the meaning of the Latin *consciūs*. For example, Thomas Hobbes in *Leviathan* wrote: “Where two, or more men, know of one and the same fact, they are said to be Conscious of it one to another. The Latin phrase *consciūs sibi*, whose meaning was more closely related to the current concept of consciousness, was rendered in English as “conscious to oneself” or “conscious unto oneself”.⁵ A basis for consciousness has also been sought in the *holistic* nature of quantum mechanics and the phenomenon of *entanglement*, according to which particles that have interacted continue to have their natures depend upon each other even after their separation. Unsurprisingly these models have been targeted especially at explaining the coherence of consciousness, but they have also been invoked as a more general challenge to the atomistic conception of traditional physics according to which the properties of wholes are to be explained by appeal to the properties of their parts plus their mode of combination, a method of explanation that might be regarded as unsuccessful to date in explaining consciousness.⁶

The term “consciousness” is very often, though not always, interchangeable with the term “awareness,” which is more colloquial to many ears. We say things like “are you aware that ...” often. Sometimes we say “have you noticed that ... ?” to express similar thoughts, and this indicates a close connection between consciousness (awareness) and attention (noticing), which we will come back to later in this chapter. Ned Block, one of the key figures in this area, provides a useful characterization of what he calls “phenomenal consciousness.” For him, phenomenal consciousness is experience. Experience covers perceptions, e.g., when we see, hear, touch, smell, and taste, we typically have experiences, such as seeing colors and smelling odors. It also covers bodily awareness, e.g., we typically have experiences of our own bodily temperature and positions of limbs. Consciousness is primarily about this experiential aspect of our mental lives.

Knowledge, belief, and other mental states are sometimes, though not always conscious, so it is important to understand the difference between (say) conscious and unconscious beliefs. This also applies to concepts and content. Whether freedom of the will and the self-require consciousness is highly debated. In this way, it can be seen that consciousness has a central place in philosophy of mind.

Materials and Methods. The Concept of consciousness in need of following certain principles, rules and methods when researching the issue of Consciousness. The methods used for researching are divided into three basic categories:

⁵ Thomas Hobbes *Leviathan: or, The Matter, Forme & Power of a Commonwealth*, University Press. p. 39. 1904.)

⁶ Silberstein, M.. “Emergence and the mind-body problem.” *Journal of Consciousness Studies*, 5: 464–82. 1998

- ✓ To study the term consciousness;
- ✓ To take into consideration the opinion of scientists related to the Consciousness;
- ✓ To investigate the main features of Consciousness;

There are many concepts of consciousness; in general there are two approaches. First, one can survey folk concepts of consciousness: how lay people use the term, and how they use other related terms (e.g., awareness) to refer to similar phenomena. Second, one can search for useful concepts of consciousness for explaining or understanding the mind. The former approach is conducted in experimental philosophy, a relatively new branch of philosophy, which invokes experimental methods to survey people's concepts, including those who are from diverse cultural and linguistic backgrounds. In this chapter, we will rather focus on the latter approach, which is traditionally favored by philosophers of mind.

Most discussions of philosophy of mind rely on the idea of conscious experience on some level. Descartes reported his conscious experiences in his *Meditations on First Philosophy*. These figured centrally into his arguments that he has a mind. Behaviorism, materialism, functionalism, and property dualism seek to explain our mental lives, so they will need to include consciousness, as it is one of the most important elements of mentality. Qualia and raw feels are one way to understand consciousness; since they have been covered earlier, we will not discuss them here.

The mind is one thing that has always fascinated and puzzled us. It is the only thing that we can be certain of existing, yet, apparently, we do not know exactly what it is, how it occurs, and why it occurs.⁷ This is in contrast to things outside the mind, such as houses, cars, and even other people, which we cannot be certain that they really exist – they may be just illusions – yet, apparently, we know what they are, how they occur, and why they occur. What is more, the phenomena of qualia and consciousness, such as the red color as it appears phenomenally red in our mind and our phenomenal conscious awareness and experience of that red color, have always been baffling – what is their nature, how and why do they occur, and cannot there be just the mind without them?⁸

Philosophers have different ways of picking out various concepts of consciousness, and they tend to strongly disagree with one another. No division is entirely uncontroversial. However, there is one distinction that tends to be the starting point of philosophical discussions about consciousness; even those who disagree with this way of carving out of the territory often start from here. It is the distinction from Block on phenomenal and access consciousness:

Phenomenal consciousness P-consciousness is experience; what makes a state phenomenally conscious is that there is something “it is like” to be in that state.

Block seeks to dissociate P- and A-consciousness. He has several argumentative lines; the most relevant one has it that P-consciousness cannot be explained by representational contents. To understand what this amounts to, one needs to have some basic grip on what representational contents are. Again, examples will help. Two beliefs are different because they have different contents: my belief that tomorrow will rain and that the day after tomorrow will not rain are different beliefs because their contents—“tomorrow will rain” and “the day after tomorrow will not rain”—are different. These contents are said to represent states of affairs, including actual ones and imaginary ones. Contents can be true or false: my belief that tomorrow it will rain can fail to be true simply because tomorrow it will not rain. Representational content itself is a complex topic that cannot be handled in this chapter; it will be the subject matter of.⁹

⁷ Armstrong, David. 1968. *A Materialist Theory of the Mind*. London: Routledge.

⁸ Prinz, Jesse. 2012. *The Consciousness Brain: How Attention Engenders Experience*. New York: Oxford University

⁹ Block, N. and Stalnaker, R. “Conceptual analysis, dualism, and the explanatory gap.” *Philosophical Review*, 1999.

There can be many reasons for believing that P-consciousness cannot be explained by representational contents, one being that an experience and a belief can share the same content, but have different phenomenology. This is debatable. Some would argue that experiences do not have representational content.¹⁰

Another distinction that needs to be in place is from David Chalmers. He poses a challenge to researchers of consciousness with the distinction between the “easy problems” and the “hard problems” of consciousness. According to Chalmers, the easy problems of consciousness are those that seem directly susceptible to the standard methods of cognitive science, whereby a phenomenon is explained in terms of computational or neural mechanisms. The hard problems are those that seem to resist those methods. Here are some examples of the easy problems he provides: The integration of information by a cognitive system; The report ability of mental states; The ability of a system to access its own internal states; The focus of attention.¹¹ Both the easy problems and the hard problems interest philosophers. Block’s discussion of P- and A-consciousness can be seen as primarily in the territory of easy problems, while Chapters 1 to 5 of this book can be seen as more about the hard problems. Now, with these two basic distinctions at hand, it is time to see how philosophers and scientists theorize about different kinds of consciousness, especially phenomenal consciousness.

Results and Discussion: Now, content and consciousness are two major topics in philosophy of mind. Another main figure in this area, Daniel Dennett, has them as his first book’s title. They are often studied separately, but some philosophers have attempted to invoke one to explain the other. The most prominent position, exemplified by Fred Dretske holds that representational content is relatively easier to understand, since it can be explained by naturalistic notions such as information; it is naturalistic in the sense that natural sciences would find those notions scientifically respectable. This view further holds that consciousness should be understood through representational content, so that it is fully naturalized.

This view is representationalism. The canonical statement of it is that “all mental facts are representational facts”.¹² This is the “naturalizing the mind” project.

Now, although Block is all for the naturalization project, he objects to this specific way of naturalizing consciousness. The basic intuition is that representationalism leaves something crucial out: the *what-it-is-like-ness* of experience. This is because, for example, beliefs with representational contents can be unconscious. Or again: some hold that experiences do not have content.

Although Block and others have been resisting representationalism, it is still the most prominent view in this area. This is presumably because it offers the most promising line of naturalizing the mind, according to many. This is important as one of the main motives in twentieth-century philosophy is to situate the mind in the physical world. Now, this prominent theory comes in various forms, which each of the following sections will summarize.

Questions about the nature of conscious awareness have likely been asked for as long as there have been humans. Neolithic burial practices appear to express spiritual beliefs and provide early evidence for at least minimally reflective thought about the nature of human consciousness. Preliterate cultures have similarly been found invariably to embrace some form of spiritual or at least animist view that indicates a degree of reflection about the nature of conscious awareness.

¹⁰ Block, Ned. 2007. “Consciousness, Accessibility and the Mesh between Psychology and Neuroscience.” *Behavioral and Brain Sciences* 30: 481-548.

¹¹ Chalmers, David. 1996. *The Conscious Mind: In Search of a Fundamental Theory*. New York: Oxford University

¹² Dretske, Fred. 1995. *Naturalizing the Mind*. Cambridge, MA: MIT Press.

Nonetheless, some have argued that consciousness as we know it today is a relatively recent historical development that arose sometime after the Homeric era. According to this view, earlier humans including those who fought the Trojan War did not experience themselves as unified internal subjects of their thoughts and actions, at least not in the ways we do today. Others have claimed that even during the classical period, there was no word of ancient Greek that corresponds to “consciousness”. Though the ancients had much to say about mental matters, it is less clear whether they had any specific concepts or concerns for what we now think of as consciousness.

Although the words “conscious” and “conscience” are used quite differently today, it is likely that the Reformation emphasis on the latter as an inner source of truth played some role in the inward turn so characteristic of the modern reflective view of self. The Hamlet who walked the stage in 1600 already saw his world and self with profoundly modern eyes.¹³

By the beginning of the early modern era in the seventeenth century, consciousness had come full center in thinking about the mind. Indeed from the mid-17th through the late 19th century, consciousness was widely regarded as essential or definitive of the mental. René Descartes defined the very notion of thought (*pensée*) in terms of reflexive consciousness or self-awareness.

*By the word ‘thought’ (‘pensée’) I understand all that of which we are conscious as operating in us.*¹⁴

Later, toward the end of the 17th century, John Locke offered a similar if slightly more qualified claim in *An Essay on Human Understanding*.

The purely associationist approach was critiqued in the late eighteenth century by Immanuel Kant who argued that an adequate account of experience and phenomenal consciousness required a far richer structure of mental and intentional organization. Phenomenal consciousness according to Kant could not be a mere succession of associated ideas, but at a minimum had to be the experience of a conscious self situated in an objective world structured with respect to space, time and causality.¹⁵

The noun “consciousness” has an equally diverse range of meanings that largely parallel those of the adjective “conscious”. Distinctions can be drawn between creature and state consciousness as well as among the varieties of each. One can refer specifically to phenomenal consciousness, access consciousness, reflexive or meta-mental consciousness, and narrative consciousness among other varieties. Here consciousness itself is not typically treated as a substantive entity but merely the abstract reification of whatever property or aspect is attributed by the relevant use of the adjective “conscious”. Access consciousness is just the property of having the required sort of internal access relations, and qualitative consciousness is simply the property that is attributed when “conscious” is applied in the qualitative sense to mental states. How much this commits one to the ontological status of consciousness per se will depend on how much of a Platonist one is about universals in general. It need not commit one to consciousness as a distinct entity any more than one’s use of “square”, “red” or “gentle” commits one to the existence of squareness, redness or gentleness as distinct entities.

When considering how consciousness arises, we recognize that various cognitive processes are associated with very distinct and stable conscious states (experiences). These experiences literally are the symbol that becomes bound to brain events. Not only do our cognitions produce experienced conscious states (e.g., frustration, excitement, thirst, redness, fatigue, boredom, anger and so forth), but we are not the least bit unaware of their meaning – we don’t confuse feeling hungry with feeling

¹³ Baars, Bernard. 1988. *A Cognitive Theory of Consciousness*. Cambridge, UK: Cambridge University Press.

¹⁴ Descartes, R.. *The Principles of Philosophy*. Translated by E. Haldane and G. Ross. Cambridge: Cambridge University Press. 1644/1911

¹⁵ Kant, I. *Critique of Pure Reason*. Translated by N. Kemp Smith. New York: MacMillan. 1787/1929

short of breath; we are not confused about why these conscious states come and go because we are not observing or witnessing them, we *are* those states. Though it is not the norm, one could nonetheless take a more robustly realist view of consciousness as a component of reality. That is one could think of consciousness as more on a par with electromagnetic fields than with life.

Since the demise of vitalism, we do not think of life *per se* as something distinct from living things. There are living things including organisms, states, properties and parts of organisms, communities and evolutionary lineages of organisms, but life is not itself a further thing, an additional component of reality, some vital force that gets added into living things. We apply the adjectives “living” and “alive” correctly to many things, and in doing so we might be said to be attributing life to them but with no meaning or reality other than that involved in their being living things. Similarly one could regard “consciousness” as referring to a component or aspect of reality that manifests itself in conscious states and creatures but is more than merely the abstract nominalization of the adjective “conscious” we apply to them. Though such strongly realist views are not very common at present, they should be included within the logical space of options.

Consciousness has been thought to open a realm of possibilities, a sphere of options within which the conscious self might choose or act freely. At a minimum, consciousness might seem a necessary precondition for any such freedom or self-determination. How could one engage in the requisite sort of free choice, while remaining solely within the unconscious domain? How can one determine one's own will without being conscious of it and of the options one has to shape it.

Consciousness is a dynamic process, and thus an adequate descriptive answer to the What question must deal with more than just its static or momentary properties. In particular, it must give some account of the temporal dynamics of consciousness and the ways in which its self-transforming flow reflects both its intentional coherence and the semantic self-understanding embodied in the organized controls through which conscious minds continually remake themselves as autopoietic systems engaged with their worlds.

Consciousness in both those senses links up as well with Thomas Nagel's notion of a conscious creature, insofar as one might count a mental state as conscious in the “*what it is like*” sense just if there is something that it is like to be in that state. Nagel's criterion might be understood as aiming to provide a first-person or internal conception of what makes a state a phenomenal or qualitative state.¹⁶ A comprehensive descriptive account of consciousness would need to deal with more than just these seven features, but having a clear account of each of them would take us a long way toward answering the “What is consciousness?” question.

There are so many concepts of consciousness, and both “conscious” and “consciousness” are used in a wide range of ways with no privileged or canonical meaning. However, this may be less of an embarrassment than an embarrassment of riches. Consciousness is a complex feature of the world, and understanding it will require a diversity of conceptual tools for dealing with its many differing aspects. Conceptual plurality is thus just what one would hope for. As long as one avoids confusion by being clear about one's meanings, there is great value in having a variety of concepts by which we can access and grasp consciousness in all its rich complexity. However, one should not assume that conceptual plurality implies referential divergence. Our multiple concepts of consciousness may in fact pick out varying aspects of a single unified underlying mental phenomenon. Whether and to what extent they do so remains an open question.

Most specific theories of consciousness—whether cognitive, neural or quantum mechanical—aim to explain or model consciousness as a natural feature of the physical world. However, those who reject a physicalist ontology of consciousness must find ways of modeling it as a nonphysical aspect of reality. Thus those who adopt a dualist or anti-physicalist metaphysical view must in the end

¹⁶ Nagel, T. 1974. “What is it like to be a bat?” *Philosophical Review*, 83: 435–456.

provide specific models of consciousness different from the five types above. Both substance dualists and property dualists must develop the details of their theories in ways that articulate the specific natures of the relevant non-physical features of reality with which they equate consciousness or to which they appeal in order to explain it. A variety of such models have been proposed including the following. David Chalmers has offered an admittedly speculative version of panpsychism which appeals to the notion of information not only to explain psycho-physical invariances between phenomenal and physically realized information spaces but also to possibly explain the ontology of the physical as itself derived from the informational.¹⁷ In a somewhat similar vein, Gregg Rosenberg has proposed an account of consciousness that simultaneously addresses the ultimate categorical basis of causal relations. In both the causal case and the conscious case, Rosenberg argues the relational-functional facts must ultimately depend upon a categorical non-relational base, and he offers a model according to which causal relations and qualitative phenomenal facts both depend upon the same base. Also, as noted just above (section 9.8), some quantum theories treat consciousness as a fundamental feature of reality and insofar as they do so, they might be plausibly classified as non-physical theories as well.¹⁸

Conclusion. Nowadays consciousness studies are pervasive not only in sciences but also in philosophy. The reasons for this are complicated; it is not simply because nowadays consciousness can be better defined in sciences.

A comprehensive understanding of consciousness will likely require theories of many types. One might usefully and without contradiction accept a diversity of models that each in their own way aim respectively to explain the physical, neural, cognitive, functional, representational and higher-order aspects of consciousness. There is unlikely to be any single theoretical perspective that suffices for explaining all the features of consciousness that we wish to understand. Thus a synthetic and pluralistic approach may provide the best road to future progress.

The issue of consciousness stands uneasily at the door of science and philosophy. I would have to say that it is properly a scientific subject matter: it is a natural phenomenon like motion, life, and cognition, and calls out for explanation in the way that these do. But it is not to prove to investigate by the usual scientific methods. Nowadays consciousness studies are pervasive not only in sciences but also in philosophy. The reasons for this are complicated; it is not simply because nowadays consciousness can be better defined in sciences.

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