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Undergraduate

A Phenomenal, Neurological, and Social Conscious Mind

By Charles Joseph S. Montesa

Onto a Unified Framework

Many of those in the cognitive science community have neglected consciousness as a topic of rigorous scientific discourse, a neglect which resulted in the disjunction between the philosophy and science of consciousness. Theorists or researchers often create a misconception for consciousness by considering it exclusively as an abstract phenomenon without any grounding in neurology. In doing so, they neglect consciousness' rightful play alongside natural order. Others, in contrast, have considered consciousness solely by the neurology, a consideration that fails to fully capture its robustness. Furthermore, many fail to recognize the importance of the contingent social aspect of consciousness. Thus, by not closing this gap, the community has created a dis-unified understanding of the most fundamental aspects of the human mind. As such, the solution to this so-called "hard problem of consciousness" is to address our limited conception of consciousness by bridging this gap between the contingent social, phenomenal, and neurological understandings of the mind.

Grounding the Phenomenon onto the Material

Before examining the abstract phenomena of consciousness, we must first understand the biological foundation on which consciousness rest. Doing so would allow us to challenge the long-withstanding presumptions that consciousness is too abstract to be dissected and

understood, a presumption that has resulted in consciousness's removal from its rightful place along other natural phenomena. This notion of the philosophical abstract has ultimately placed consciousness high out of the reach of science, to a place where it becomes difficult to reach any sort of better understanding. Fortunately, time has allowed this dualistic approach to lose argumentative power as technology and different methodologies that allowed for the objective studying of the mind possible became available. At this point, we clearly see that it is not the case: Our tools are too insufficient for the job, but rather, it is that we must bring consciousness back down so that we can most properly use them to their fullest capabilities.

This issue of the "abstract" originates from the notion that consciousness transcends the body, i.e. the consciousness, and mind, are manifestations of a different substance that interacts with the material substance that is our body. Materialism rose to counter in hopes of making more scientific sense of these phenomena. While the term materialism alone is too broad to capture within any one standard definition, it is best defined as approaching the mind either purely by its underlying neurological processes (Physicalism) or by the mental phenomenon itself (Mentalism). Together, both approaches suggests that the mind and body can exist mutually exclusive and separate, differing from Cartesian Dualism in that neither are contingent on the other. Despite this difference, however, materialism leads us to fall into the very same error that its charges Cartesian Dualism of doing. For to reduce the identity of the mental phenomenon to either its physical or material substrate, is to reduce the argument back to a duality. This is because the mental phenomenon of consciousness is necessarily a property of the mind in the same that "wetness" is a property of water. The reduction of the mental phenomenon is, in other words, to mistaken property with identity. This reduction reverts back to the duality of phenomenon emerging from the physical if we expect to escape this property-identity error. However, the real mistake lies within the fact that materialism fails to recognize that they are

looking at the wrong thing. It is that searching for consciousness in the brain, or in the mental phenomenon alone, is like trying to find the “running” of the car in the spark plugs (Locke 2008). What follows is that neither part of the materialistic approach will lead us any closer to a concrete, coherent picture of consciousness and what is needed is a closer examination of the mind as an emergent property.

Emergence

If we cannot find consciousness in the brain or in the mental phenomenon alone, where then can we find it is the question we have yet to answer. The discussion above, however, is a cause to reconsider whether that is the right “question” to be asking. For what the question of “where” is really asking is where is the place (the seat of consciousness) where we can find the object that is the phenomena of consciousness, i.e. it is a question of structure as opposed to one of phenomenon (Sartre 1992). By reframing this initial question, it now becomes a matter of asking how the phenomena comes about, rather than from where it does, and thus sets us towards the correct direction of inquiry.

In order to understand consciousness in terms of its material, we must first ask how the phenomena of consciousness come to emerge. We must then ask if the material of the body managed to give rise to consciousness, and if this material is the same as those of the outside, why then does the outside world not exhibit consciousness. More simply, why is it that humans are the only living-beings to have consciousness? It should be noted that the initial question above of is a question of the process of the emergence (Korzeniewski 2011) of the phenomena and should not be mistaken with the question of location and structure. To reiterate, it is not a question of where but is one of how. Furthermore, the question also validates the importance of grounding the phenomena to its neurology (Korzeniewski 2011), and thus allows us to understand consciousness in terms of its functionality within the whole complex of the mind.

If it is not within the material itself where we can find consciousness, then we must presume that consciousness is something that cannot be found. We must therefore define the sourcing of consciousness as being not the objectification of consciousness, but of the emergence of consciousness. Here, we are defining emergence as denoting the act of transcendence, transcendence from the material and body as a phenomenon, or condition, of our physical mind (Korzeniewski 2011). Consciousness is a property that adheres itself fully to the physical mind in such a way that it cannot be removed and studied. Similar to removing the spark plug to find the “running” of the car, attempting to remove any part of the whole would result in the destruction of the whole (Locke 2008). This counter-intuitive act of picking out pieces, the study of consciousness must take on a macro-scale analysis of the whole phenomenon as opposed to the nit-picking process of finding a singular emergence point.

The neurological foundation for consciousness

Consciousness has biologically resulted from evolutionary advancements made on the more simplistic stimulus-response structure (Korzeniewski 2011). First, the simple network began to increase the degree of complexity of the simple mechanical and deterministic stimulus-response process by mediating behavior into multiple intermediary stages. This development then further advanced into the most autonomous, goal-driven decision-making systems. More simply, developments to the simple stimulus-response mechanism gave to the formation of the recurrent information manipulating structure of complex, highly intelligent beings.

Based on the conversation above we can now conclude that it was due to the chance development of appropriate conditions that the conscious phenomena came to develop and emerge (Korzeniewski 2011). Development here is best described as the continual shifting of neuronal weights within the population of neurons we call networks, or neural structures, that,

together “wire” or “represent” real world objects and concepts. This continual shifting of weights was the result of learning via trial and error. In other words, it is the process of optimization: the retuning of neuronal weights in order to strengthen the connections and weakening others respectively. These rewired connections then determine the constraints by which neurons become either excited or inhibited whenever certain stimuli are present.

We can also understand this developmental process from a much higher perspective that looks at the general changes affecting the network as a whole. First, specific receptors within the network receive sensuous data from the outside world. From there, we move into the mind’s lower order associative structure in which underlie our understanding of primary concepts -- “concrete individual and concrete objects, facts, features, and aspects of the world” (Korzeniewski 2011). This leads us to the higher order associative structures that underlie our understanding of secondary concepts -- “abstract entities, categories, laws, and dependencies” -- and is where subjectivity begins to emerge (Korzeniewski 2011). With the entire layout now depicted before us, it becomes more evident that the existence of some form of hierarchical order is necessary for consciousness to emerge. Now we should clarify that when we say hierarchical order, we do not mean in the sense of modularity, but in the sense of intricate interweaving of parts that allows for continual processing.

The Hierarchical Subjective Phenomena

In the strictest abstract sense of the term, consciousness has led us down a complicated, winding path and if we wish to seriously pursue a productive dialogue on consciousness we must find a way to escape it. Pursuing the material has already grounded our understanding in terms of the biology of consciousness, but it is insufficient in that it fails to explain the more seemingly abstract properties of consciousness --subjectivity, self-consciousness, etc. While it does attempt

to explain the existence of subjective phenomena, the explanation is pale in comparison to robust nature of the abstract phenomena. The detail of the parts alone does not do the richness of such phenomena any justice. To begin our exploration here, then, we must begin to pursue consciousness on a higher plan, above materiality, and onto a more abstract plane.

What consciousness is, is NOT how we OUGHT to see it

It is so often the case that in defining consciousness we manage to mistake or mis-identify consciousness. Many of these mistaken identities of consciousness find themselves justified because of seemingly clear connections with common sense. However, this proves to be false when we begin to admit that consciousness itself is in fact a prerequisite for these identities to be revealed to reality (Sartre 1992). Among these identities is that consciousness is awareness. This is false, and it is so because we often find ourselves in situations where we are “conscious” of our circumstances without actually being aware of them. Consider the basic sea sponge. It would make sense in this case to say that the sea sponge is aware of environment for it would be necessary for it to survive, e.g. it must be able to sense food, predators, and the like. However, to say that it is conscious would be rather silly. Another mistaken identity is that consciousness is self-awareness, i.e. to have self-knowledge. A mistake in which identifies the container of knowledge to the content of knowledge and thus leads into the logical infinity (Sartre 1992). More specifically, the issue lies in that we have identified the container, the mind, with the infinite, but restricted, possibilities that it can contain, and this would be counter-productive if we wish to find a clean, concise definition of consciousness. The here is that in order to grasp consciousness for what it is we must begin to accept that consciousness exists solely as itself, purely itself, and nothing but itself. More simply, consciousness simply is (Sartre 1992). This then translates to an understanding that consciousness exists not as knowledge or awareness, but exists as the contingency by which consciousness knowledge and aware rely upon. In other words,

“Consciousness is its own foundation but remains contingent in order that there may be a consciousness” rather than an infinite of potential content (Sartre 1992). Doing away with the previous misidentifications will not only further simplify the manner, but it will also make for a more intuitive understanding.

Building towards an hierarchical understanding

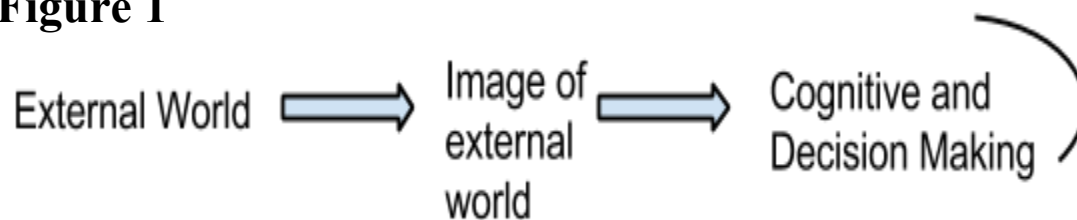
Now accepting that consciousness is a phenomenon that simply is, it becomes easier to accept the biological grounding we have established earlier. Materiality gives us consciousness as an emergent property that results from the continual information manipulation process. We can further expand on this by understanding that the emergence of consciousness arises, more specifically, from a hierarchy of complexities that begin with the simple stimulus-response and then led to the emergence of the subjective corner of the mind (consciousness). This can be further reduced this hierarchy to a simple three-step revolutionary process -- the emergence of stimulus awareness (“non-knowing”), the emergence of representative awareness (awareness of the mental representations of a stimulus, i.e. “know of”), and the emergence of the self-knowing (self-consciousness) (Locke 2009). We should note here that the emergence of consciousness occurs during step 2 and is the understanding in which we will further develop in this paper. Step 3 is the addition to consciousness that has allowed for human-level intelligence, and is a necessary part of the conscious psyche, but is not necessary to bring forward in argument if we only wish to define consciousness.

Tackling the Hard Problem of the Subjective Subconsciousness

Though we now have a distinction between consciousness and self-consciousness, it would be necessary to understand that the self-conscious self as being a contingency on which the conscious human psyche relies on, but that is necessary in understanding consciousness

itself. Self-consciousness can be defined as having a sense of one's self, or of having self-orientation (Locke 2008). It is the "formalization of a subject capable of observing the processes occurring within the network including the subject itself (Locke 2008). More plainly put, it is the emergence of a neural network that allows it to formulate a representation of itself, as "external" stimuli, for processing. As such, self-consciousness can be considered as the addition of recursivity to the consciousness network (refer to figure 1).

Figure 1



Consciousness emerges from the biological neural hierarchy beginning from the lower order to the higher order parts, and what follows is the formation of the recursive nature of self-consciousness which adds another dimension to the human psyche, completing the mind as we know it.

The issue of subjectivity

To what extent can we explain the subjective nature of the mind in terms of its biology has been subjected to much debate. It is argued that the biology is just not enough to explain the robustness of our qualitative experience, and this has consequently caused the withholding of consciousness from serious scientific discourse. This is wrong on two counts. First count, it is a mistake to remove the subjective phenomena, to any degree, from natural phenomena -- all phenomena (substances) are sensory in natural in nature to some degree (Korzeniewski 2011). Second count, the argument assumes that consciousness is contingent on subjectivity. Second count, the argument assumes that consciousness is contingent on subjectivity.

Further expanding on the former count from above, let us ask the question how do we know that we are experiencing the same “blueness as others. It is a question that has driven us to presume that very subjective nature of qualia makes it far too complex for us to understand given the limited nature of our scientific tools. Resultantly, qualia is left out of the out when discussing consciousness. This however neglects qualia’s rightful place along the natural spectrum that is phenomena. On this subject, Korzeniewski (2011) puts forward that “the ‘meaning’ of the ‘subjective quality of’ different neurophysiological structures and processes is relationally determined through the referring to other structures and process” (Korzeniewski 2011). Qualia can be understood in reference to the associative structures that give rise to second order mental experiences. It is that the mere difference in qualitative experiences owes to the correlational relationship the perceiver has with the stimuli. This translates to our experience of “blueness” arising as a product of a series of continual weight changes in the network that embeds a connotative relationship. That is, it embeds the relationship through which its conceptual identity was formed - its associative identity in relation to our other experiences, like “red” for example, owes to how the brain happened to associate the property with its physical stimulus. “Blueness” is nothing other than the property of a select set of objects in which happened to stimulate the appropriate receptors during brain development (Korzeniewski 2011).

Critics still hold that it simply is not possible for the robust nature of the subjective experience of “blue” or “red” to be captured in such “simplified” terms; however, the argument detract away from the main point of this brief discussion. Because our experience of “blue” is the result of the mere association with a certain set of stimuli, there is no need to further expand on the matter for it is through mere association that we can see robustness arises. And thus, the argument points to no relevant issue. Considering how others see it, or considering the discrepancies that may exists between any two experiences, the argument is unnecessary for the

sake our exploration of consciousness. The point is here -- we must not stray away from what is important for the purpose of indulging in the finer details of abstract experiences. What we simply wish to know is how the whole of such experiences comes to be, and not how its individual constituent properties came to be. Deconstructing it as so would undermine the entire structure in the very same way that attempting to remove any one part of the brain would lead to the destruction of consciousness.

Phenomena

Thus far, we have been equating consciousness with phenomena while keeping to the assumption that phenomena could be understood from its common sense book definition. However, we have yet to take into consideration the more abstract notions of consciousness beyond the qualitative experience. The fact is consciousness as a whole is a phenomenon, and as such discourse on consciousness must take into the phenomenological perspective on the phenomenal experience.

Phenomena often lead to the perception of a state of being in which occurs. So when we say the phenomena of fire, we are speaking of the state of fire being temporally existent. In a similar sense, phenomena and consciousness can be understood as asking the question of being. What is being? Being simply is (Sartre 1992). Being simply is in that it exists within reality insofar that it appears to us to some degree. Note here that being cannot be revealed in its entirety at one time, for the entirety of being consists of an infinite possible number of appearances. As such, we cannot say that being (or consciousness) is simply the unification of these appearances for it would lead to infinite regress. Being, therefore, cannot be anything but what it is and must be removed from reality. Removed not in the sense of being outside of it, but of being as a state of condition in which being falls into. Of course, this is restricted in the sense that being is constricted to the realization that it is what it is not and is contingent with the reality

that surrounds it, or in other words it is the realization of the *facticity of the for itself* (Sartre 1992).

The “for-itself” in the *facticity of the for-itself* denotes the I, the being that exists, and “facticity” denotes the necessary relationship it has with the “in-itself” -- what being is not but has the potential of being. This necessary relation is that in order for the “for-itself” to exist it must negate what it is not, i.e. the “it-self”. This negation restricts the existence of being to being a nothing more than what it is opposed to what it is not or what it could potentially be (refer back to the “what it is NOT” conversation), It is in this way that consciousness can be understood as being contingent to the biological reality that is grounded in. More simply, we cannot find the “running” of the car by looking under the hood, as we cannot possibly expect to find the “wetness” of water by examining it molecule by molecule. Both properties exist insofar that the necessary collective order that gave rise to it exists intact. It is in this way what being is contingent. Being cannot be anything other than what it is because it is contingent on the necessary order of circumstances that gave rise to it -- it is the “for-itself” not the potentialities of the “in-itself”.

The Social Mind

While consciousness has been mostly thoroughly discussed at this point, we have yet to touch upon the final piece of the picture. Largely we have been dealing with the use of the lack of cohesion caused by the power struggle between two prevalent theories, i.e. between those who look exclusively at the phenomena and those who look exclusively at the biology. We can now see that both intertwine in many ways and are necessarily contingent on the other. Discussion on phenomena without grounding it in the biology results in a discussion of just thought experiments and untested/inapplicable theories. And the biology alone is too restrictive, and does

not truly capture the richness that is subjective experience, which is attributed to the existence of consciousness. With this in mind, it then seems evident that we must put the two together as being mutually inclusive. However, this is still not enough. What is missing, I argue, is something that is often overlooked – the social.

It is commonly accepted that the mind is embodied. It is embodied in the sense that we define the cognizing act of perception, reception, and action as a means of shaping the world that is around us, as well as allowing us to be shaped by it. In one, the mind is restricted by the environment, in the other the environment is restricted to how the mind acts upon it – think back to the notion of the contingent being. But this mode of thought can lead one to think about the natural environment when in reality “environment” is also inclusive of the social environment.

Looking at it from a neurological perspective, the basic learning process amounts to (1) the satiation of basic needs, (2) the satiation of pleasure, and (3) the avoidance of pain. Moving up, these basic three lead to the formation of associative and the conceptual structures in which pull in our conceptual representations of the world in terms of what gives us pleasure (increases dopamine), what satisfies our needs (hunger, thirst, etc.), and learn what causes pain. And it is in this associative-level learning that has led to the evolution of high-level cognitive ability, including subconsciousness (arguably the highest form of intellectuality). Again, this is not assume that subconsciousness is necessarily related to consciousness, but rather it brings forth the most available aspect of consciousness, for most of consciousness does not appear in its entirety to us human reality (refer back to our discussion of the phenomena).

It is in this sense that consciousness, subconsciousness, can come into a much brighter light, for we have not only grounded the phenomena of consciousness in the biology, but in the social-natural environment as well. And this is the way we must seek out consciousness. For it is only through a thorough inspection of it in its entirety, i.e. the whole phenomena, the phenomena

in which appears through biology, and its contingency to its environment that we can have a productive discussion of what has been thought as the hard question. At this point, this no longer seems to be the case.

Conclusion

After having taken into account a collaboration of approaches and of various notions, a basic understanding of consciousness has come to light. The goal of this discussion on consciousness, but we was a means to develop further understanding in such a way that we can have a more productive conversation on consciousness. The way we had initially presented consciousness was counterintuitive to this in that it increased the distance between the topic we wished to understand and ourselves. As an excuse, we attempted to blame the abstract nature of the phenomena as well as the insufficiencies of our tools, when in fact the error was in our fragmented, incomplete approach. And resultantly, this led to us to stray away from having a serious scientific discourse of consciousness. And so we close our discussion; however, this is not the end. For consciousness is far richer than what we have deduced it to and one cannot fathom that such deduction closes the story of consciousness. There will be points of contention along the way, and this is to be expected when dealing with something that exists between the plans of biological reality and of the abstract reality. In the same way that we have come to accept the abstract existence of mathematics and the role it plays in human reality, consciousness must be accepted as existing in such a way that allows it to be manipulated to some degree. Consciousness can be subjected to theories and experiments. However, because it doesn't exist to us in its entirety, much will remain loosely defined, leaving to be subjected to debate for many centuries to come.

Acknowledgements

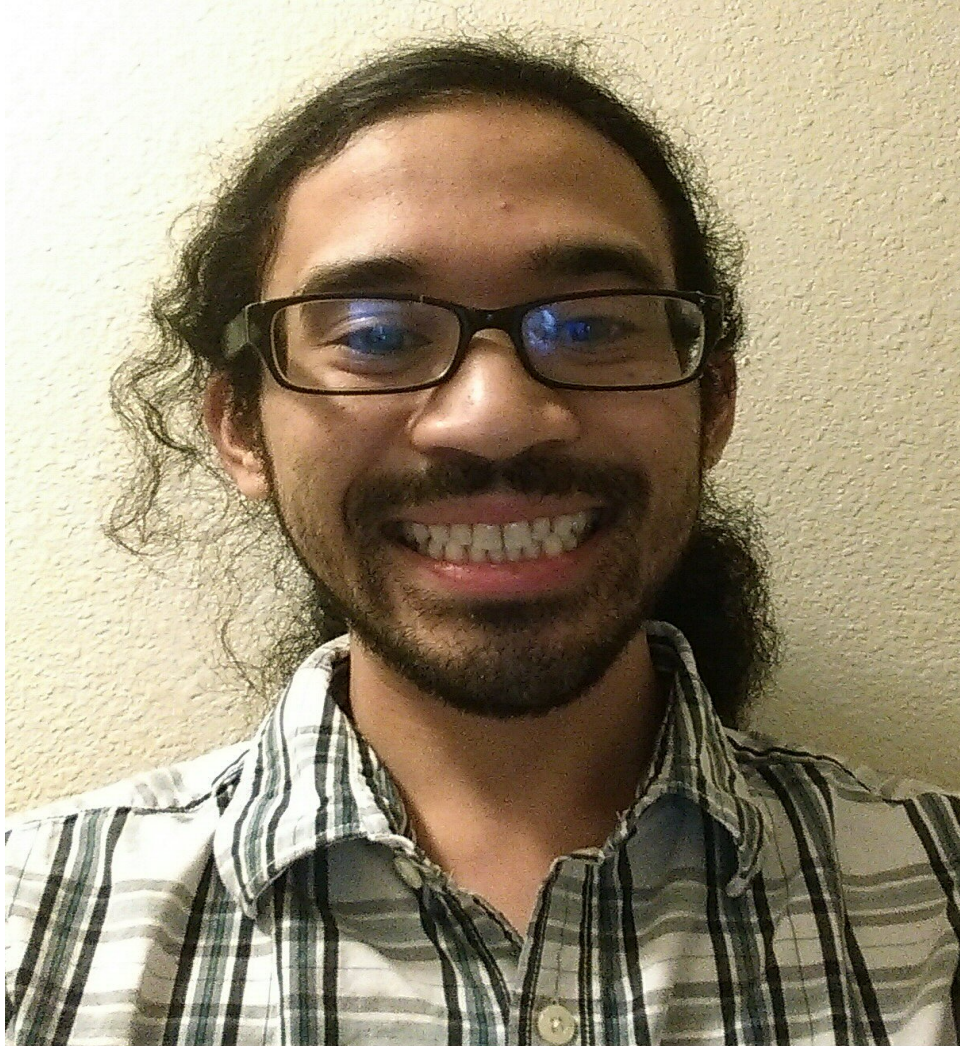
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