Solving the Unsolvable

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I. Introduction

We don't usually give much thought to our ability to interact with our immediate surroundings. Yet, these conscious interactions are perhaps more fascinating than most of us would expect. While there might seem to be nothing significant about consciousness, the fact that our wide spectrum of sensory experiences are integrated into a single coherent story is not out of sheer randomness. Philosophers and scientists have been looking into the mechanisms that have made the integration of information possible. Nonetheless, this complex problem is still largely grounded in objective reasoning and is regarded as the easy problem of consciousness. The hard problem lies in the subjective component of consciousness.

II. Understanding the Hard Problem

The crux of the hard problem is to explain the subjective experience that accompanies humans interactions with the objective physical world. It is not a first-order question demanding a straightforward answer. Rather,

it is a multi-faceted mystery that is often answered with a system of thoughts like dualism.

At the heart of it, as David Chalmers pointed out, there are two questions that must be addressed (Burkeman). Firstly, why do we possess subjective experience? Secondly, how are subjective experiences generated from a number of physical processes? This essay aims not to ludicrously provide answers to these questions, but to discuss insights that might lead us ever so slightly nearer to the coveted truth.

III. The Why Problem

The "why" problem is perhaps even more confusing than the "how" problem. When asked the "how" question, the obvious direction would be to look into the neural mechanisms or biological correlates of subjectivity, regardless of whether this approach could adequately solve the problem. The "why" question, however, persists even when the physical mechanisms or biological correlates of subjectivity have been revealed. It asks about what causes subjectivity to exist and the significance of its existence.

According to Chalmers, the question is difficult to answer because subjective consciousness serves no functional role in humans (Weisberg). Standard scientific methods rely on reductive explanations and functional analysis acts as a premise. Take genes as an example, they bear the function of passing hereditary information. By conducting experiments and evaluating empirical evidence, Oswald Avery was able to identify DNA as the molecule that exhibits the function of passing hereditary information, and thus DNA is found to be the physical correlate of genes (Watson

118–119). The presence of a function is what the standard scientific methods predicate.

The same does not apply to subjective consciousness. While consciousness does grant our lives meaning, it is not crucial to performing human functions or survival itself. For instance, when a person feels stressed, their cortisol level rises. In face of danger, a person feels threatened and his adrenaline level rises in preparation for the fight-or-flight response. However, it appears that these responses can be mediated without ourselves actually feeling them. We would still be able to respond equally well with increased levels of adrenaline and cortisol to address the stimuli, without ourselves actually feeling the stress or sense of threat. Chalmers asks the intriguing question, "Why aren't we just brilliant robots?" (Burkeman) From an evolutionary point of view, any traits that does not bring or even undermine survival advantage would likely be eliminated in the course of evolution. If being able to detect stimuli, integrate information and produce responses like robots are more than sufficient for survival, why should the sensations of hotness, pain, colours and more be something that we consciously *feel*?

Below are two possible reasons that have caused the emergence of subjectivity.

Firstly, humans do not always act in accordance with the presented stimuli and our responses to the same stimuli are not always stereotyped like robots' are. The Freudian structural theory of mind suggests the presence of a superego acting alongside our id. Our ego does not act merely based on the instinctual urges as represented by the id, it is also largely influenced and controlled by our moral agency (Kandel 179). As such,

our actions do not only serve to satisfy our functional needs but also our moral requirements and higher-order thinking. Subjective consciousness grants us much more versatility in our responses to stimuli. For example, a student might feel tired when doing a group project but he figures that it is not so unbearable that he has to give up and hold back the entire group's progress. Firemen rushing into the fire scene feel the scorching heat and threats but understand that it is their job to save the kid that is still stuck in the building. With subjective consciousness, we possess the extra ability to adjust our response according to what we feel. This also allows us to act against our survival instincts and perhaps demonstrate the "humane traits" that we do not see in pure mechanisms.

Secondly, subjectivity could have partly arisen from subconscious mental activity to serve as a protective mechanism for individuals in some cases. Kandel's experiment with facial expressions has proven that people with higher subconscious background anxiety tend to feel anxious even when fearful faces are not shown clearly and consciously seen. (Kandel 190). This shows that our subconscious mental activity does cause differences in how we perceive things when presented with the same stimuli, and subjectivity thus arises. This may be helpful when we have had unpleasant experiences before, which triggered certain subconscious mental activities (e.g. background anxiety, subconscious avoidance of certain things). These subconscious mental activities in turn infuse certain feelings into our consciousness to increase our alertness and better prepare us for initiating a response. It echoes with the Freudian belief that we often repress our feelings and emotions from our awareness and instead present them through subconscious agents (Cherry). Alternatively, our subconsciousness may also infuse positive feelings (e.g. comfortable,

pleasant aroma) into our consciousness such that we would subconsciously look for these positive attributes that aid our survival or success. In Poincaré's narrative about how he discovered mathematical theories, he believed the mathematician's sensibility of mathematical beauty paves their paths to mathematical discoveries (Poincaré 173). This again serves as an example of how unconscious feelings can lead to a difference in our conscious behaviours, thus creating individual differences in how we respond to a particular stimulus, which would sometimes subtly lead us to a more advantageous direction.

IV. The How Problem

As mentioned above, it might seem obvious that one should turn to neural biology in an attempt to explain how subjective experience arises from physical processes.

This approach is not at all groundless. Decades ago, it would have been impossible for people to imagine that the entirety of human variations can be coded into a biological molecule. It is only until the discovery of DNA's structure by James Watson and Francis Crick that the once magical hereditary process has been made clear. The fascinating hereditary process ultimately has not escaped the boundaries of physics and chemistry. In recent decades, more intangible phenomena have been successfully reduced to results of physical or chemical reactions. For instance, depression has been attributed to a decreased level of serotonin in the brain. Human's amazing record of reducing complex phenomena into culminations of simple laws naturally makes most of us believe that subjective experience is "just another problem". Feelings like sourness, pain or warmth might

eventually be explained by the operation of certain neural circuits yet to be identified.

Nonetheless, this approach has seen two major challenges.

Firstly, some believe that there is still a gap between physical laws and subjective experience. American philosopher Frank Jackson proposed the thought experiment called Mary's room (Alter). Mary is a neuroscientist who somehow has grown up in black-and-white room and has been staying in the room ever since. She studies the science of colour vision such that she has understood all about the physical phenomena that have enabled us to see various colours. Nonetheless, when Mary is released from the room and sees actual colours of red, she would still be able to learn something new—that is the *experience* of seeing the red colour. As such, Jackson concludes that physical knowledge is not knowledge of everything, and subjective experience might be one of the things that physical knowledge fails to capture. How physical phenomena like the firing of neural signals ultimately transcend into intangible subjective feelings still remains largely unknown, and thus dualism becomes a viable explanation. Nonetheless, the argument that there is a soul and body has an insurmountable gap. Just as how the connection between physical phenomena and subjective feelings remains largely unclear in reductionism, the connection between the soul and body remains largely unaddressed in dualism. Moreover, the mind-body theory is largely unfalsifiable, and little evidence has been provided even by its supporters. This makes the theory very much unfound.

Secondly, finding the neural correlates of subjective experiences does not necessarily mean we have solved the puzzle. Cognitive psychologist Donald Hoffman has it best explained. He believes that it is a correlation that we have established between brain activity and subjective experiences

tasting vanilla by testing which part of our brain is activated when subjective experience is elicited (The Institute of Art and Ideas). It is not a theory that we have established. He used the train station analogy to explain his view. Passengers assemble at a train station, and the train soon arrives. Nonetheless, we do not regard the assembly of passengers as the cause of the train's arrival even though it precedes its arrival. It is a correlation that we have established between the assembly of passengers and the train's arrival. Similarly, brain activity preceding subjective experience does not mean brain activity causes subjective experience. It is a train schedule that has coordinated the events at the train station and the hard problem of consciousness lies in finding the train schedule of subjective experience.

V. Another Perspective

The complex arguments as to why and how subjective experience emerges have caused significant disputes among philosophers and scientists. On the other hand, it is also possible that the discrepancies of understanding that different parties have is just a conceptual gap.

Philosophers might tend to understand subjective experience from an introspective, personal approach, whereas scientists tend to approach the issue from third-person objective neurobiology (Weisberg). The difference in approaches leads to an inherent gap in understanding what the final cause of subjective experience. While neurobiologists might be satisfied with the discovery of a neural circuit, philosophers might believe that the explanation is not complete with respect to the train station analogy mentioned above. Even when all neurobiological mechanisms of subjective experience have

been revealed, the conceptual gap still remains. Ultimately, it is like closing the difference between water and H_2O, which are essentially the same although they might be differently conceptualized. It is therefore possible that upon full discovery of relevant neurobiological mechanisms, there shall be nothing more worth questioning about consciousness.

VI. Conclusion

In conclusion, it is undeniable that solving the hard problem shall involve a drastic change in our perspective, whether it is a change in scientific terms or epistemological terms. It is foreseeable, though, that the hard problem shall be resolved one day under the conjoined effort of philosophers and scientists, and that shall mark another triumph in human history.

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Teacher's comment:

As the title suggested, the problems of consciousness are seemingly unsolvable. It is puzzling enough how the notion of consciousness

be conceptualized, let alone addressing the so-called hard problem of consciousness, i.e. how subjectivity arises. Barry (LAU Ka To) shows that it is an intriguing issue by merely asking the right questions. He presented the *why problem* and the *how problem*. By following how the questions are addressed one appreciates the difficulties of the problems. In the end Barry provided yet an alternative, philosophical approach to view the conundrum. It certainly deserves some credit for a proper presentation of the problems. (LAI Chi Wai Kevin)