Why Qualia are Physical: Establishing Casual Relationships Between Body and Qualia

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1| Introduction

There is one thing that we can never fully imagine living without and that is consciousness. After hundreds of years of contemplation and inquiry, we're still straining to understand this thing that hardly ever leaves us: consciousness. For most people, the very notion of 'living' entails having conscious experiences. Within these conscious experiences, most people have long believed there to be a dichotomy between thinking and feeling. There have been a plethora of modern discoveries in regards to the thinking component of consciousness, but knowledge regarding the nature of the feeling portion has remained notably elusive. That is why there is so much philosophical discourse on the topic.

Formally, philosophers redefine the division between thinking and feeling as a split between access and phenomenal consciousness, where access consciousness is defined as the thinking portion and phenomenal the feeling portion. Qualia is another philosophical term commonly used in discussions of phenomenal consciousness, where qualia are defined as raw feelings and sensations (Kim 271-272). This paper explores arguments regarding the nature of qualia and consciousness as a whole, and I will provide my own original argument after outlining the philosophical landscape of this debate.

2| Thesis and Roadmap

Although it may be tempting to believe that qualia are nonphysical because they are subjective, instead, in this paper I will argue that qualia are physical phenomena because they are casually intertwined with the body, which is physical, and only physical objects can act on other physical objects as per casual closure. After I have provided context and examined contemporary

views, I will use common sense to depict qualia as intuitively in the physical domain. Next, I will discuss scientific evidence that elucidates how qualia are bodily. I will then make an appeal from meta-induction wherein I claim that science will inevitably come to define a casual relationship between body, brain, and qualia. As a corollary, given the casual closure of the physical domain, it will be evident that qualia are necessarily physical.

3| Contemporary Context

I will now provide context regarding views on the nature of qualia. Philosophers fall into two primary categories: philosophers who believe the mind and brain to be wholly physical, and philosophers who believe that the mind and brain have some nonphysical components.

Pro-Physical Qualia Views (+)

3.1| Campbell Against Inverting Qualia (+)

Neil Campell refutes an argument commonly given against physicalism that has to do with qualia being inverted. The argument claims that it is possible for two people to be behaviorally and physically identical but capable of having different subjective experiences, and as a result, subjective experiences must not be reducible to objective experiences. Campbell repudiates this argument by first establishing that the mechanisms by which an individual senses are inextricably intertwined with emotion. Next, he avers that emotion is deeply connected to behavior. Moreover, he claims if the way a person senses their environment changes, the way they feel about their environment must also change, and as a result, their behavior will change. Hence, the possibility of there being two individuals with different sensory modalities and the exact same physical behavior is impossible.

In evaluating Campell's line of reasoning, I find that I endorse his claim. There are well documented connections between emotions and perceptions. A prime example is perceptions of colors and their connections to emotion. Campbell discusses in his paper: "Children will use dark colors to express their sadness when they're painting, bright colors to express their happiness" (Campell 5). There is an entire subdiscipline of psychology that systematically documents how people are emotionally affected by color. Additionally, I know that colors evoke different emotions in *me*, and I hypothesize that most people will likely express a similar sentiment. In summary, to deny that colors directly affect emotions would mean denying not only science, but my own intuitions.

Given emotions influence behavior, and the argument involving qualia inversion depends on there existing two people with the same behavior, it is apparent that the argument would only work if people had no emotions. However, people clearly have emotions. Furthermore, if two people sense differently and experience different emotions, then their actions diverge; this yields differing physical changes. Moreover, what you do changes your physical composition, and if how you sense changes what you do, then this also changes your physical make-up.

3.2| Russian Blues Study (+)

The findings of Winawer, Jonathan, et al. (2007) coincide with the aforementioned conclusion. Researchers ran an experiment in which two sets of participants with different linguistic backgrounds were asked to discriminate between colors. More specifically, the first set of participants were Russian-speakers who had been conditioned to split blue colors into light and dark colors as per their language, and the other set of participants were English-speakers

who had been conditioned to split blue colors into only one category as per their language. The objective of the experiment was to see if linguistic differences directly translated to perceptual differences; this was found to be true, indicating that language directly shapes people's basic ontologies. Moreover, Russian-speakers perceive the color blue in a completely different way than English-speakers do, and as such, Russian-speakers sense and perceive the world in a different manner.

Coupled with what Campbell claims, this conclusion implies that Russian-speakers must have different qualia associated with blue colors because they perceive them differently. Russian-speakers also, conjunctively, must demonstrate distinct patterns of behavior when exposed to blue colors. The experiment demonstrated just that: the Russian-speaking group had different response times than the English-speaking group. Perceptual differences directly result in differences in qualia, which result in differences in behavior (Winawer, Jonathan, et al). By extension, if the technology was ever advanced enough, researchers would likely find differences in the brains of Russian-speakers and English-speakers due to these perceptual differences.

In summary, science and my own intuitions indicate that there can be no change in how one senses without a change in behavior, and a change in behavior necessitates a change in physical composition. Modalities of sensation, emotion, and behavior are tightly married together with changes in physical composition. Given sensations and emotions form qualia, qualia are casually intertwined with physical composition.

A Rebuttal Against Physical Qualia: (-)

3.3| Qualia ≠ Emotions and Sensations (-)

Some may argue that there are more to qualia than simply sensations and emotions. Moreover, one could claim that the actual ‘what-it’s-like’ of an experience is not merely this emotion or that sensation, but something else entirely that cannot be objectively comprehended. To a certain extent, this is an understandable sentiment, as the interaction between the parts of the system (i.e. the body, brain, and mind) does give rise to a distinct whole that is not easily comprehended. To be more specific, sensations and emotions are never not interacting with thoughts and other components, so the ‘what-it’s-like’ experience becomes of an experience of many other experiences itself, and this superficially appears to be infinitely recursive and deviant from the physical world.

However, qualia, in essence, are merely emotions and sensations derived from the external world. A lot of fast-moving components give rise to a complex but wholly-physical system that appears so incomprehensible that it seems nonphysical at first glance. However, upon further inspection, it becomes evident that experience is made up of systematized physical components in flux.

To surmise, one could claim that qualia are not reducible to emotions and sensations because experience as a whole feels so powerful on a phenomenal level, but objectively, experience can be systematically understood by analyzing the components of the system, i.e. the processes behind phenomenal consciousness. The components of phenomenal consciousness (of qualia) consist of emotions and sensations.

3.4| Jackson's Mary Argument (-)

Frank Jackson posited an argument aligned with the aforementioned rebuttal that went against physicalism and argued in favor of nonphysical qualia; it was called the Mary's Room argument. The thought experiment used in this argument goes something like this:

Mary is a brilliant scientist who spends her entire life trapped in a room of only black and white colors. She reads about colors, thinks about colors, fantasizes about colors– but she's never seen a color before. When she steps out of the room for the first time in her life and finally sees a red rose, she experiences something she has never experienced before: what it's like to see red. Upon stepping into the real world, Mary experiences the qualia of red for the first time ever.

Jackson claims the qualia of seeing red is subjective and does not seem to be something that can be reduced to physical processes. Consequently, he argues in favor of dualism. His argument is as follows:

1. Before her release from the black and white room, Mary had all the physical facts
2. When she sees a tomato after her release, she gains new information
3. Hence the information gained is not physical

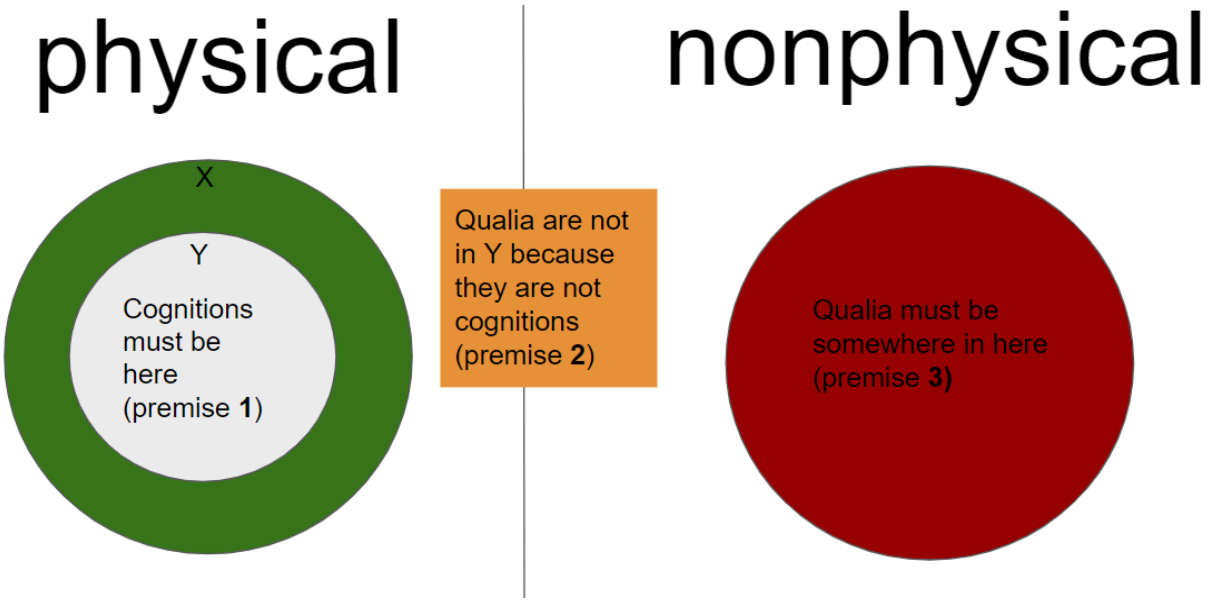
C. Hence, physicalism is false, and there exists something nonphysical (Kim 323-324).

Jackson highlights an important dichotomy between cognition and qualia; however, his argument is unfocused and his conclusion that qualia must be nonphysical is erroneous. His argument can be distilled into the following form:

1. Objective cognitions are physical processes

2. What it's like to see red is not a cognition; it's subjective qualia
3. Qualia are not physical

As I interpret what he means to argue, this a model of what Jackson intends to say:



His argument does not eliminate the possibility of qualia existing in circle X. If some qualia are allowed to exist in the physical domain as per his argument, then appeals from Occam's razor and meta-induction seem to disprove his argument almost by default. Moreover, if some qualia could be physical, why would they not all be? The only way for his argument to really defeat physicalism would be if he argued that all qualia are nonphysical, but he allows for some to be physical. As such, even with a valid formal argument, his argument becomes invalid in the colloquial sense of the word.

4| An Argument for Physical Qualia (+)

I will now transition into my argument for why qualia are physical:

1. Sensations and emotions are qualia
2. Sensations and emotions are casually intertwined with the body, which is physical
3. Only physical things can be casually intertwined with physical things

C. Qualia are physical.

I will now give a preliminary thought-experiment depicting qualia as physical.

4.1| Intuitive Thought Experiment (+)

Taylor is lactose intolerant, and finds that when they eat lactose, their body reacts negatively. As a result, they feel negative sensations and negative emotions; they experience certain qualia due to certain bodily states.

Taylor decides to be someone who believes their qualia are nonphysical, though they are consciously aware of the effect physical objects have on their qualia. As such, they explain the interactions between their mind and lactose as the following:

[physical] Lactose → [physical] Body →[physical] Brain → [nonphysical] Mind (qualia)

Taylor tells their father, who is a psychiatrist, about how physical lactose influences their nonphysical mind.

Their father replies,

“When I give a patient a drug to treat a psychological condition, how do you suppose this drug that has a spatial location interacts with something that does not? Also, if the mind isn’t physical, then why does it stay in one physical location across time? My mind is never in your body. If a mind is nonphysical, what stops it from being out in front of me and moving around?

Additionally, if my mind left my body from time to time, then there would be times in which a drug could not influence my mind– but this does not happen. It seems as though the mind is inseparable from the body. You could even say that the body is an extended part of the mind or that the mind and body are merely two manifestations of the same whole. Why else would I have to learn about bodily anatomy in medical school to be a doctor of the mind? Does it not make sense to assume the entity that 'feels' is somehow responsible for your feelings?"

The body is physical and directly influences the mind, so it makes sense that the mind is physical. On a practical, intuitive level, it seems body and the mind cannot be separated.

4.2| Bodily Qualia: Somatic Marker Studies (+)

Researchers have found that emotions consistently correlate with bodily states. Neil Levy discusses evidence that outlines this: The Somatic Marker Hypothesis (SMH) states that emotions mediate cognitive processes, and somatic states play a large role in emotions. Studies have found that prudential thinking and moral behaviors can be correlated with skin conductance responses (SCR). In one study, participants were given rewards after winning in gambling games. When participants were playing with winning hands, they had measurable anticipatory skin conductance responses *before* they saw that they had won; their bodily responses indicated something they only felt covertly on a deep intuitive level, as this response necessarily preceded their conscious knowledge of the winning hand (Levy 188). Moreover, this study demonstrates that what people think of as a 'gut feeling' intuition about the future is likely just that: a bodily response that is then consciously felt as qualia.

Another study Levy discusses found that patients with damage to a specific area of the brain would not exhibit SCR when participating in the gambling study. Additionally, they found that these patients often exhibited poor decision-making skills in the real world, and they sometimes exhibited psychopathic characteristics.The study found that people with the specific brain damage who did not exhibit the typical somatic responses in the gambling game were more likely to engage in imprudent and immoral behaviors. What this suggests is that a lack of morality in some cases can be measured through a lack of expected bodily responses, i.e. SCR. The absence of a component in the brain affected bodily reactions to stimuli in a decision-making context, and this pattern extended into real-world moral aptitude (Levy 189). Emotions and sensations seem to be bodily or at least casually interacting with the body, and qualia are comprised of emotions and sensations.

4.3| Meta-Induction: Establishing Casual Relationships (+)

As research methods improve, casual relationships will become more defined between mind, body and qualia. J.J. Smart held a view parallel to the aforesaid statement, and this view is referred to as meta-induction. Smart argues that in other domains, problems that were previously assumed to be unsolvable were later solved by science, so the problem of consciousness will likely fall into the same category. For example, chemistry and biology could not explain how life emerged until the discovery of DNA (Lecture 5.2). Applying meta-induction to what has already been discovered, it becomes clear that science will likely produce a well-defined model of causation between bodily emotions and cognitive processes.

4.4| Against Meta-Induction (-)

Opponents of meta-induction may contend that consciousness has no clear route to resolution, whereas chemistry and biology did. Additionally, one can use induction against meta-induction to argue that since consciousness has taken so long to be understood, it may just as likely never be understood. Science may simply not be able to explicate human consciousness.

Though it is true that scientists currently do not know exactly what they need to research to understand consciousness, scientists had absolutely no idea what they were looking for when they set out to explain biological phenomena. Gregor Mendel did not know what DNA was when he started breeding his pea plants, and yet, even though people had been completely mystified as to what gave rise to life for thousands of years beforehand, DNA was discovered less than 200 years after Mendel started breeding pea plants. Solutions to problems only emerge as they are understood; they are not augured beforehand and then pursued. To deny meta-induction is to rebuff human ingenuity. It will not be long before science defines casual relationships between body, mind, and qualia.

4.5| Appealing to Casual Closure (+)

If there are casual relationships between body, mind, and qualia, and we accept casual-closure, then qualia must be physical. Casual-closure stipulates that only physical entities can stand in casual relations to other physical entities. If the body, which is clearly physical, stands in any casual relationship whatsoever to qualia, then qualia must be physical. Only physical things can casually interact with other physical things (Kim 214).

5| Conclusion and AI Commentary

The hard-problem of consciousness will likely remain unsolved for decades to come. However, as I write this concluding section, my friend is using a camera-based AI app that just complemented my yellow shirt. The AI also said my chair looked comfy and that it looked like I was getting a lot of work done.

It will not be long before AIs are fully emulating human behavior. However, human-beings will always be able to do something that AIs cannot: experience qualia. How can an AI feel anxiety without a body to be anxious about? If the AI cannot experience bodily harm, it cannot fear in the same way humans feel fear.

I have been skydiving. No AI will ever skydive– at least not until it has a body. Therefore, no AI will ever know what it's like to skydive. As such, AI in its current form will always be relegated to mimicking human speech. No matter how many poems ChatGPT writes about skydiving, it will never actually know what it's like, just as Mary did not know what it was like to see red. AIs may be conscious in some way, but they are certainly not conscious the way we are.

(2999 words excluding headings)

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