THE QUESTION OF QUALIA

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Daniel Dennett concludes his provocative essay “Quining Qualia” with the radical assertion that, contrary to all common sense, “there are simply no qualia at all.”¹ By “qualia,” he means “the way things seem to us” – the unique content of our conscious experience at any given moment.² The metaphysical nature of qualia, or conscious experience, is one of a bare handful of questions which is no closer today to being solved than it was when Descartes first conjectured about the duality of mind and body. Neurobiological explanations of sensation and perception abound, but these do not address the “hard problem” of consciousness – that is, how can it be possible for a non-physical phenomenon such as conscious experience to arise from a world which, we hypothesize, can be understood entirely in physical terms?³ Dennett’s approach to this question may be counterintuitive, but its significance cannot be overstated. The successful elimination of the need to reckon with qualia as a metaphysical fact would also eliminate the significant challenge they pose to the materialist picture of reality.

² Ibid., 226.
Despite the modern-day prevalence of an implicitly materialist ontology, numerous arguments and thought experiments make the case for the necessary existence of a non-physical component to our reality. Frank Jackson’s “knowledge argument,” illustrated in a now-classic thought experiment, makes a strong case for dualism. Mary, a brilliant scientist, “knows everything there is to know about the physical processes relevant to color vision.” However, she has never seen color herself.\(^4\) If Mary then experiences color for the first time, Jackson says, she has then “learned a new fact” – but, since she already knows every physical fact, the fact which she has learned must regard something non-physical. Accordingly, Jackson concludes that “the physical facts do not exhaust all the facts.”\(^5\) David Chalmers makes a similar case with his conceivability argument, which proposes the idea of “philosophical zombies.” These “zombies” are beings which are metaphysically identical to human beings in every respect but one – they lack phenomenal consciousness. A philosophical zombie may report being in pain and may grimace or cry exactly as if in pain, but no actual pain will be experienced. Because such a being is conceivable, Chalmers argues, there must be an implicit dualism upon which the thought experiment rests.\(^6\) Finally, the explanatory argument holds that physical accounts of reality can “explain at most structure and function,” but that consciousness is a phenomenon that cannot be explained purely in terms of structure and function. Therefore, “no physical account can explain consciousness” and consciousness must be non-physical.\(^7\)

Each of these arguments seeks to establish both an epistemic gap and an ontological gap dividing physical from nonphysical reality. The epistemic gap refers to a difference in

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\(^4\) Ibid., 249-250.
\(^5\) Ibid., 250.
\(^6\) Ibid., 249.
\(^7\) Ibid., 248-249.
our way of knowing physical and non-physical phenomena. While physical truths can be deduced from other physical truths, the arguments go, non-physical truths cannot be logically arrived at from knowledge of anything physical. The ontological gap, meanwhile, refers to a separation or metaphysical distinction between physical and non-physical reality. It is, depending on the specific argument, either strongly implied by the existence of an epistemic gap, or a necessary conclusion following from it.8

The idea that reality can be split fundamentally between the physical and the nonphysical has elicited numerous responses. In Chalmers’ classification, the first major response to dualism is Type A Materialism, a broad grouping of positions which eliminate both gaps by arguing that there are no qualia – or, at least, “nothing in the vicinity of consciousness that needs explaining over and above the various functions.”9 (Dennett may be said to broadly fall into this camp, although he is neither a behaviorist nor a total eliminativist.) Rather, our language is structured in such a way that although we may speak of private mental states, all that really exists is disposition towards a particular behavior.10 Pain, for instance, is not conceived of as having existence in itself, but rather as being a strong disposition towards alleviating some physical malfunction. On the other hand, Type C Materialism accepts the epistemic gap but denies the ontological gap. Although it accepts that there is such a thing as private, qualitative experience, this does not correspond to a fundamental divide of reality between the physical and the nonphysical. Rather, the split is only between different modes of understanding the same substance.11 Finally, two types of dualism affirm both gaps but maintains that the gap must be bridged somehow as

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8 Ibid., 250.
9 Ibid., 251.
10 Ibid., 252.
11 Ibid., 258.
the two sides of reality must have some causal impact on each other. Type D Dualism which allows for “downward causality,” whereby the phenomenal can causally affect the physical.\(^{12}\) Type E Dualism posits a “one-way” causal flow from the physical to the mental (leaving phenomenal properties as dead-end “epiphenomena”), and another which allows for “downward causality,” whereby the phenomenal can causally affect the physical.\(^{13}\)

Into this jumble of theories and countertheories steps Dennett, whose radical “quining” of qualia does not quite deny them entirely, but rather seeks to understand their nature.\(^{14}\) Dennett maintains, for instance, that “conscious experience has properties… in virtue of which those [conscious] states have the experiential content they do.”\(^{15}\) Accordingly, rather than deny conscious experience, Dennett’s project aims more to define qualia out of existence, such that his precise definition of qualia, which he takes to be the usual definition, is shown to be untenable. Because non-intersubjective phenomenon such as qualia cannot be referred to by a common language, defining them tends to be a difficult and somewhat arbitrary project – as Dennett himself acknowledges.\(^{16}\) However, the question of whether qualia “exist” might be best rephrased, not in reference to specific “second-order” properties they are said to possess, but in reference to the nature of their being – what kind of thing is a quale?\(^{17}\) Obviously, there

\(^{12}\) Ibid., 261.
\(^{13}\) Ibid., 263.
\(^{14}\) Dennett, “Quining Qualia,” 226.
\(^{15}\) Ibid., 227.
\(^{16}\) Ibid., 226.
\(^{17}\) Ibid., 229.
is *something* we have been referring to as a “quale” – but that “something” might be a “thing in itself,” or, just as likely, a kind of heuristic name that we give to a collection of interconnected processes because we find it pragmatic to think of them as one. Dennett, of course, ultimately concludes in favor of the latter – and yet the notion of qualia as “real” remains tempting. Might it be the case that qualia are, somehow, things “in themselves”?

Dennett uses a series of “intuition pumps” – brief thought experiments designed to convince our rational minds by first appealing to our intuition – to illustrate the fallibility of traditional, implicitly realist conceptions of qualia. Implicit in these traditional conceptions is the breakdown of sense perception into a tripartite process. First, the sensory organs deliver raw data to the brain; second, the brain produces (or the mind experiences) “qualia” in response to that data; third, the mind interprets these qualia and forms judgments about them (i.e. positive or negative valence). It is the middle term which Dennett believes can be done away with. Although I ultimately believe he is right, the purpose of this paper is to prove this by attempting to defend as far as possible the reality of the middle term, qualia.

First, it seems clear that qualia cannot belong fully to the first or the third term. If one is tempted to equate qualia with the first term, sense data, one must remember that sense data can be misprocessed. One can see this in optical illusions. One such illusion involves three orbiting circles and three stationary triangles; stare at the circles long enough, and the triangles disappear. The light waves from the triangles are still entering my eyes, just as before; the data is reaching my brain, but I do not see the triangles. Qualia, then, cannot be sense data, but must be some sort of process by which sense data are understood. And yet, qualia cannot belong fully to the third term, interpretation, either. Although Dennett considers that

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18 Ibid., 227.
qualia might be “constitutive acts” by which we “bring [qualia] into existence... by fiat,” he rejects this easily, and it is not hard to see why. Try as I might, I cannot will myself to see something red as blue, or vice versa. Thus, there is a sense in which qualia are things external to me – immutable facts encountered by the part of my mind which judges and acts, and not constituted by that part.

Thus far, the idea of qualia as neither data nor interpretation suits our working conception of qualia as a) real, and b) the middle term in the tripartite model. Dennett’s intuition pumps cast doubt on this conclusion, but do not ultimately render it impossible. The pumps aim to show that qualia have no consistent, intrinsic properties, even internal to one subject; in fact, however, they only show that qualia cannot be known to have consistent intrinsic properties internal to one subject, even by the subject himself. The most striking of these pumps is a thought experiment involving two coffee tasters, whom he calls Chase and Sanborn. Although the coffee they taste has not changed in terms of its composition, their judgment of the coffee has; they no longer like it. Dennett claims the two tasters cannot know whether they are now experiencing a different taste, as Sanborn believes – or whether, as Chase believes, they are merely judging the same taste in a different way. Further, he suggests that “their apparent disagreement [might be] more a difference in manner of expression than in experiential or psychological state”. If it is true that there is no substantive difference between a change in experience and a change in judgment – if there is no clear delineation between the middle and third term – then there is no way for qualia to be metaphysically real.

However, it is not immediately clear why one could not distinguish between the two reasons for their change in

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19 Ibid., 233.
20 Ibid., 231-234.
21 Ibid., 232.
judgment. For instance, if one were to beam the original taste of the coffee into their heads now, the two tasters should be able to tell whether what they tasted then is the same as what they are tasting now. Of course, such a “coffee beam” presumes that qualia are real, and thus that there is some objective old taste-experience which can serve as a basis of comparison for the new taste-experience. To investigate more clearly whether this can be maintained, let us try taking the experiment outside the mind by assuming Chase and Sanborn return to their alma mater. Both find the visit nostalgic. “The campus is just what it used to be,” says Chase, “only it doesn’t produce the same reaction in me anymore. When I first came here the sight of these buildings filled me with excitement and possibility; now, all the buildings appear to me as run-down, metaphorically speaking of course, and it just makes me sad for good times past.” “What are you talking about?” replies Sanborn. “The campus has changed! The streets need repaving, the floors haven’t been redone in several years, and there’s ivy growing up the wall of Old Main! It does make me sad, but it’s not a metaphor – the whole thing is run down, literally!” Now, it is possible, as Dennett suggests in another of his intuition pumps, that one of the two men is misremembering. One must concede Dennett’s point this far: memory cannot always be relied upon, and it is possible that one or both men are wrong about the phenomenon – this time an external phenomenon – that they are encountering. However, it is not possible that the difference between the two accounts is merely one of interpretation; rather, it is an empirical fact whether or not the campus is objectively in a state of physical deterioration relative to its physical state several decades ago.

The state of the buildings corresponds to the taste of Maxwell House coffee – that is, the thought experiment suggests that whether the quale of an experience has changed is a fact which is objective but merely not sharable, and thus not verifiable. This conclusion is supported by the realization that it is not a conceptual impossibility to think of qualia as inter-subjective. Language is a grossly insufficient medium for
communicating direct experiences in detail. However, one can imagine circumventing the language barrier via direct mind-to-mind communication. Whether this takes the form of the new Neuralink technology currently in development or the telepathy of science fiction and fantasy does not matter; the point is not whether such communication is possible but whether it is thinkable. If the nature of qualia is such that they it is conceivable for them to be agreed on by two independent subjects, then qualia might be comparable to the buildings of Chase and Sanborn’s old campus: objective, public things which are rendered subjective and private only by incidental factors.

If this logic holds, the strongest case that can be made for Dennett’s original thought experiment is that there is no way to for anyone, even Chase or Sanborn, to actually distinguish Chase’s claim of changing judgment from Sanborn’s claim of changing qualia. However, if this is the case, it would only amount to there being no pragmatic difference between the claims. An unobserved but very real metaphysical distinction would remain, which in turn would allow one to plausibly maintain the reality of qualia.

All of this, however, rests on the assumption that Chase and Sanborn are, in fact, looking at the same alma mater. Returning to the world of coffee, and Dennett’s original thought experiment, there is no reason to suspect that Chase and Sanborn ever experienced the same taste – or is there? After all, the coffee itself is exactly the same – poured from the same pot, perhaps. The question of what bearing the material bases of qualia has on the qualia themselves is a complex one. On the one hand, Dennett is careful to couch Sanborn’s explanation for his changed preference in material terms; Sanborn talks of his “tasters” being defective, which we take to mean his tongue, taste buds, and neural pathways. Dennett refers to the objective sensory data that enters the brain along neurons as “phenomenal information properties” (or “pips” for
He writes: “Chase’s speech shows that he is under the impression that his pips are unchanged…. Sanborn is under the impression that his pips are different.” Pips, however, are material phenomena, and if a pip-based account of the change in flavor is the correct one, then there must be a physiological basis for the change, and it will be easily proven which man’s explanation for his dislike of the coffee is correct. One might instead try to recapture the essence of the thought experiment by assuming only that Sanborn’s qualia have changed – and yet, a change in qualia in the absence of a material change would be impossible under physicalism. Such a “random qualia shift” – random because of its lack of a physical cause – is conceivable, yet its existence would have enormous ramifications.

This implication can be avoided if one considers that the shift might in fact be a (materially based) mental process occurring after the sense data arrives in the brain – that is, it might be something to do with that data’s interaction with other brain processes. Indeed, as the optical illusion involving spinning circles and stationary triangles, mentioned above, indicates, it is foolish to assume that higher brain functions have no impact on perception. So long as qualia do not arise from sense data alone but exist as a kind of compromise between sense data and higher brain function, there is no need to resort to dualism. However, for two reasons, this causes the entire argument to collapse.

First, with respect to the shareability of qualia – previously brought forward as a point in favor of their reality – if qualia do not correspond to sense data, but are influenced by idiosyncratic interpretation, then they cannot be shared without also sharing the interpretive context of the mind in which

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22 Ibid., 232, 242.
23 Ibid., 242-243.
24 Ibid., 243.
they originate – in other words, without substantially transforming the mind receiving the data. It is much harder to imagine that data could become directly sharable between minds if qualia will only ever arise from the interaction of that data with the unique mental state of one individual mind. It may be true that a given neurological state will always correspond to a unique qualia, but it is in this narrow sense alone that qualia have objective being. Insofar as there continue to be individual, independent minds, any such objective being is decidedly not public. Accordingly, the alma mater thought experiment is based on a fallacious premise, and there is no reason to suppose that Chase and Sanborn taste the same thing when they taste Maxwell House coffee. Their observable reactions to it and their conscious assessments of it may have changed in lockstep with each other, but this is a pragmatic requirement on the part of the brain, which must process reality consistently and reliably. As for the qualia it generates in doing so, there is no reason they must be likewise consistent and reliable.

Second, and more importantly, with the introduction of higher brain functions, one has essentially transmuted Sanborn’s explanation into Chase’s. The assertion that there has been an objective change, essential for maintaining the reality of qualia, is ultimately explainable only in terms of a change in interpretation. Dennett’s point is proven.

These objections, which together speak strongly against the reality of qualia, can be accounted for much more easily by rejecting the original three-part model of perception in favor of a two-part model. Earlier, realizing that qualia belonged neither to the senses nor to interpretation, we supposed that they must have a separate being of their own as a “middle term.” However, we neglected a second possibility: that qualia exist, not between these two terms, but as the holistic experience of all mental processes associated with both terms. It is here that Ned Block’s notion of types of consciousness becomes helpful. Block begins with P-consciousness – that is, phenomenal consciousness, the information about the world
that we passively receive from our senses and thus objectively are experiencing.\(^{25}\) P-consciousness, to put it in Dennett’s language, can be thought of as the sum total of our pips. Block distinguishes P-consciousness from A-, or access, consciousness, which has to do with control.\(^{26}\) Taking Block’s conception with some liberality, A-consciousness refers to the executive processes which, among other things, incorporate this sense data into an internal representation of the world in which we are acting. It is non-passive and pragmatic. Moreover, beyond merely returning feedback to the world (i.e. in the form of actions), A-consciousness in fact processes the world only with respect to its capacity to be acted upon.

This further assertion is demonstrated by a number of psychological experiments dealing with attention blindness. In one such study, viewers are asked to count the number of times players of a certain team pass a basketball. While their attention is focused on the task at hand, a man in a gorilla suit is able to walk through the scene unnoticed. The gorilla, though it is clearly present in our P-consciousness, is not attended to by our A-consciousness. The nature of qualia as more than just sense perception hinges on whether one can claim that, in fact, we do not see the gorilla.

This might at first seem straightforward. The correct visual data enters your eyes; just because you fail to “attend” to certain aspects of it, does not mean that you do not see it. However, consider again the case of the moving circles and the disappearing triangles. In this optical illusion, the proper visual data enters your brain – however, some mental module automatically filters it out as unimportant. The triangles are not there; although they reappear when one looks directly at them, so long as one keeps one’s eyes steady, one can attend to the space where they were and note their phenomenological


\(^{26}\) Ibid., 208.
absence. This is a curious case. One possible interpretation is that the triangles are filtered out as unimportant prior to the generation of P-consciousness – thus defeating our earlier definition of P-consciousness as the sum of one’s pips. However, another possible interpretation is that the triangles are actually present in P-consciousness, but that some evolutionary module which is better considered part of A-consciousness has become so deeply ingrained in our biology that our minds fail to see the triangle by reflex. If the latter is true, it would suggest that the triangles’ state of absentness is the same state in which all “qualia” which exist in P-consciousness are in when not being attended to by A-consciousness. Thus, we literally do not see the gorilla. However else our brains might process these unattended visual cues – for instance, in the case of blindsighted people – there is little cause to suspect they would be rendered as qualia.

Thus, if A-consciousness is the unity of experience and action, qualia might best be thought of as experience-judgment. After all, although we do not will qualia, neither do we “encounter” them as external phenomenon; rather, we encounter the world through them. Not being part of the external world, they are not things which are apprehended but rather are themselves the process of apprehending. They are not “representations” of neurological processes; rather, they are those processes: what looks like neurons firing from a third-person perspective is experienced from a first-person perspective as qualia.

If the two-part model is indeed correct, then qualia do not have a being-in-themselves but are a heuristic used by the brain to interpret the world. Although some of Dennett’s intuition pumps postulate an objective change in qualia – see, for example, the one involving an evil neurosurgeon who “inverts” your vision such that down appears as up – in fact all that happens is a temporary, materially-based disturbance in perception which fades away as your brain reinterprets the
new qualia as “normal.” Soon, despite the supposed change, your brain has learned to reprocess “down” as “up” and you are, not metaphorically but literally, experiencing things exactly as before. Such flexibility confirms both the independence of qualia from sensory input and their nature as having no fixed nature.

Although one must conclude that Dennett’s argument is sound, neither the two-part model nor the three-part model decisively eliminates the other from consideration. However, the tripartite model does not have quite the intuitive appeal that was initially supposed. Because it requires qualia to have objective existence apart from material sense data and higher brain processes, it is, compared to the two-part model, far less compatible with ample psychological evidence indicating much back-and-forth between higher brain functions and the sense data which supposedly informs them. A two-part model, which postulates that experience does not come between perception and interpretation but rather is constituted by them, is a much better fit. Accordingly, the reality of qualia as anything more than a mental heuristic must be cast into serious doubt.

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Works Cited

