

Why are qualia so mysterious? — a materialist's story.

Abstract:

Levine's explanatory gap presents qualia (and their mysteriousness) as the main sticking point in the materialism anti-materialism debate. This paper makes the claim that materialists should not only strive to naturalize qualia in their theories but also explain why they seem so mysterious in the first place. The paper attempts to provide one such explanation of said mysteriousness. The materialist picture painted is hoped to give materialism a foundation upon which it can bridge the explanatory gap (and possibly defend itself against Kripke's modal argument against forms of materialism). The picture will ultimately be that our ability to introspect, that is, our "inner-sight" if you will, is a blind-innersight, analogous to the known condition, blind-sight. If this picture is correct (i.e. it agrees with neuroscientific findings) then it is to be believed it will handily serve the materialist's explanatory needs.

My goal in this paper will be to guard materialism against Levine's explanatory gap as well as, in passing, Kripke's modal argument.

First, to outline my hurdle: as elaborated by Levine, the explanatory gap is to be understood as a failing of materialism to satisfactorily capture qualia in physical terms. When supplied with a full theory of the motions of molecules, the identity "heat = motion of molecules" appears to fully explain the phenomena we call heat. Heat is fully intelligible in physical terms; there is nothing that is left mysterious about heat after we have given our

explanation of it in terms of the motion of molecules¹. I think we can agree with Levine that this does not appear to be true with an identity such as “pain = C-fiber firing”. We can concede that a complete theory of C-fiber firings might fully explain the causal role of pain: the identity helps explain an important aspect of the phenomena we call pain². But it does not capture everything, says Levine: it utterly fails to explain “*why pain feels the way it does!*”³ This aspect of pain, the “qualitative character”, or quale of the sensation, is left “completely mysterious”⁴.

The bottom line is that qualia seem unintelligible in physical terms⁵. And the options for getting around such a difficulty are few. I believe Levine’s paper does a fair job of suggesting what these options are. These are to either attempt to reduce qualia down to some trivial entity or deny their existence entirely⁶; posit qualia as brute facts of certain physical phenomena, accepting their unintelligibility⁷; or accept the task of making qualia intelligible in physical terms⁸. I believe neither of the first two solutions are appealing. The first is immediately unappealing in that it will have us attempt to unforgivingly destroy or dissolve a rather persistent concept in the literature. Besides this, I personally feel at least *some* pull

¹ Levine, “Explanatory Gap”, 357.

² Ibid., 357.

³ Ibid., 357.

⁴ Ibid., 357.

⁵ Ibid., 358.

⁶ Ibid., 360.

⁷ Ibid., 357.

⁸ Ibid., 358.

towards qualia. The second solution would leave materialism as equally uneconomical and unparsimonious as epiphenomenalism: this would be to leave materialism without its primary appeal in my opinion. The third solution would be my choice then: the materialist should accept there is constructive work to be done. The only problem is, this seems to be an incredibly weighty task, a task that many philosophers have no doubt already laboured upon: I am out of my depth – unless there is another way of looking at the problem. I propose a fourth way out for the materialist: instead of trying to make qualia strongly intelligible in materialist terms, why not *accept* their mysteriousness but *account* for this mysteriousness in the materialist picture.

In all truth, this “fourth solution” can be subsumed under the third solution: I am simply construing “intelligible” very narrowly here, to mean something like “not at all mysterious”. Really, my fourth solution will still make them intelligible in the broad sense of “explainable”, only now I am explicitly committed to making the *prima facie* mysteriousness also explainable. For the sake of clarity going forward, I will fix my interpretation of “intelligible” to the broad sense. Besides the obvious rhetorical flourish of conjuring up a “fourth solution”, I have elaborated all this in an attempt to highlight a difference in approach: instead of starting with the belief that qualia truly are intelligible and working to prove this, I wish to start by conceding that qualia truly feel mysterious in some manner and that materialists should seek first and foremost to find a picture that will account for this feeling of mysteriousness. This latter approach, I believe, is a little more charitable to those of us who are “qualia freaks”, as Jackson puts it⁹, all the while opening the door to making qualia

⁹ Jackson, “Epiphenomenal Qualia”, 127.

intelligible: I do not think we can truly demystify this concept unless we also provide an account of why it was so mysterious in the first place.

In accordance with this approach, my goal will be to propose a picture that adheres to materialism yet provides a satisfying account of why qualia feel so mysterious, thus clearing a path towards filling the explanatory gap and making qualia intelligible in purely physical terms. I start by trying to give the idea of qualia some weight in the mind, giving the “qualia freaks” the benefit of every doubt. I do so in my own (prolix) fashion, naturally leading to my proposed picture. This lead-up is not essential to my solution – it merely sets the stage for it, providing background. Ultimately, I think we will find that my picture is really rather simple – but then, if a simple solution works, why not take it?

Before setting out to paint this picture, a word on Kripke’s modal argument; just as Levine suggested¹⁰, I believe we will be able to dismiss the modal argument once we have provided a picture that can fill in the explanatory gap. The import of my particular picture on Kripke’s argument will be briefly discussed at the end of the paper.

Let me start with this: what *can* we say theoretically about qualia? It seems even the most basic theoretical claims we can make of it (such as, what kind of entity it is) will be contentious¹¹. I cannot hope to defend such claims in nearly as much depth as the many philosophers who have already probed the notion of qualia. But with no clearly accepted theory of qualia at hand, how am I to begin? Well, by first remarking said lack of consensus.

¹⁰ Levine, “Explanatory Gap”, 357.

¹¹ Tye, “Qualia”, intro.

Qualia and its qualities, I think we can all agree, are very difficult to articulate. Their mysteriousness then, at least in the sense of their resistance to clear articulation, is a problem for theorists of all stripes.

Let me retreat further back then: how do we speak of qualia in everyday speech¹²? When we say, pointing at some pie, “this tastes like apple pie” we are able to articulate that we think this because it is sweet and a bit tart with a nice soft chunky feel and so on. When we say “this is what it is like to taste apple pie”, where do we point and what can we articulate? Perhaps this is my own failing but I truly cannot articulate anything concrete about why I think “this is what it is like to taste apple pie” in any way analogous to the first case, nor do I feel inclined to point at anything in particular. Others I have talked to similarly draw a blank. Besides a recognition that were in some way speaking of “the feel” of the experience, nothing else can be immediately said. Smart’s suggestion that we talk of this “feel” in roundabout “topic-neutral” ways¹³ only further suggests to me the mysteriousness of the subject.

Are we doomed to quail before the quale forevermore? No. I believe there is at least one interesting and analyzable manner in which we talk about the qualities of our experiences: through metaphors and similes, or perhaps more generally, associations and disassociations. This is not quite the same as Smart’s topic-neutral talk, which seemed heavily focused on the physical circumstances that normally bring about the sensation in question. I want to speak of associations more broadly: something more akin to “what it is like to experience x is what it is like to experience y ”. If we can make these kinds of

¹² To take such an approach is perhaps contentious in itself, but I think it will lead to some interesting ideas and so is justified. Anyhow, I have to start somewhere.

¹³ Smart, “Sensations”, 64.

associations (or disassociations), it would suggest there is some kind of commonality between x and y that makes the association possible.

The notion of an association is a very broad notion: I should take a moment to nuance my use of it. Clearly there are different sorts of associations. The two broad categories that I will outline are the following: first, what we might call “external associations” and second, what we might call “psychological associations”. Roughly speaking, the first is any kind of association that is made on the basis any kind of commonality between the relata, considered from a Gods eye perspective. An example of this would be the simile “apples in the orchard look like Christmas ornaments” if the simile is justified by a statement like “...because they are both round, red, attached to a tree and about the same size”. Again roughly speaking, the second sort of association is one made on the basis of some internal psychological association between the relata. An example of this would be Pavlov’s dog thinking to itself “the sound of the bell sounds like dinner time”. I distinguish these two sorts of associations really just to set one aside: I am not interested with psychological associations between introspected qualia but instead with external associations made between qualia. I want to find examples of us grasping properties or characteristics intrinsic to the qualia in question, not examples of us making associations based on arbitrary or extrinsic properties of the qualia. From here on out, by default I use the term “association” to mean “external association”.

We saw that in the case of a simile between perceptions, such as “apples in the orchard look like Christmas ornaments”, a justification for the simile was at hand. In other words, the commonality brought out was easily articulated. Is there an analogous justification for similes or metaphors about introspected qualia? If we can find clear cases of external associations between qualia, then there should be a commonality to be articulated. But in

every case that I have encountered, it appears to me we are unable to articulate a concrete commonality between the introspected qualia.

To support this opinion, let me briefly consider a few metaphors we might find in common speech. I will begin, in keeping with theme: “to taste freshly baked apple pie is to taste home and hearth”. In less poetic terms, we might translate this as “what it is like to taste apple pie is like what it is like to be at home or at least feel at home”. This metaphor does not seem to be any good. To boot, the experiences of feeling at home or being at home are extremely nebulous experiences (at least in comparison to the experience of tasting apple pie). Moreover, this looks suspiciously like a psychological association: we might justify the metaphor with a statement like “I have many fond memories of eating apple pie at home”. Let us try a different metaphor: “this pain is sharp and pointy” or “the character of this particular pain I am experiencing is what it is like to experience touching sharp and pointy objects”. This is already much better as the relata are much narrower. However, we might worry this is still a psychological association: it seems the metaphor will be justified by the fact that whenever we touch sharp and pointy things, it often gives rise to an experience of pain. If we are charitable though, this metaphor might work: we also might justify the metaphor by saying those pain experiences caused by sharp pointy objects are somehow similar to the particular pain experienced now. Somehow the qualitative character of the experiences are similar – although similar in just what way, I would find it difficult to articulate (excluding mundane physical characteristics such as the duration of the experiences – these do not seem to be the properties we are interested in when we talk of the feel of an experience). Whether such a metaphor is truly good enough remains debatable but I think we can agree we are getting closer. I actually think finding an acceptable association is very difficult: I believe the most

likely candidates for study are in fact disassociations such as “what it is like to see a colour photo is not what it is like to see a black and white photo”. The fact that we are able to distinguish between two sorts of experiences in the first place shows that, speaking in qualia-friendly terms, we can at least mark where there is a lack of commonality between two quale. However, to try to concretely articulate what makes them different, again, leaves me bewildered. Perhaps this is a personal failing but going forward, I have to assume it is common. In short though, if we are to be charitable to qualia advocates¹⁴, we seem to have an ability to distinguish and associate qualia but we cannot explain why we make the distinctions and associations we make.

How do we make sense of all this? Materialists and non-materialists alike will have some explaining to do. It seems as though our ability is auto-magical: we perform such associations instinctively, but cannot give any justifications for why we make them the way we do. For an epiphenomenalist, the story might go as follows: “look, all this suggests that there are laws that just make these relations hold and that our mind is just able to grasp these relations, precisely by those same laws”. I cannot be sure this is what advocates of epiphenomenalism would say, but there is at least the threat that even more phenomena will have to be added to the list of “nomological danglers”¹⁵. For the materialist on the other hand, the task seems a bit harder: not only will she have to explain the *prima facie* auto-magical character of this ability, but also turn the ability into something intelligible in physical terms.

¹⁴If we were to try to outright deny that we make any truly external associations or disassociations of qualia, I suspect we could only do so by seriously reducing qualia down into much more trivial or brute entities.

¹⁵ Ibid., 61.

In other words, she will have to convince us there are justifications for these associations and they are articulable in physical terms. Though the task may be bigger, so is the reward: in explaining away the auto-magical character I believe she will have done a great deal to explain away the mysteriousness of qualia.

What story will the materialist tell then? The one that presents itself to me as the most obvious and clarifying will be one in which the auto-magical ability becomes instead an automatic, unconscious ability. The idea is this: just as some have the condition of blind-sight, we all have blind-innersight. Through perception we are aware of external objects, allowing us to react and interact with external objects; through introspection we are aware that we are perceptually aware of external objects, allowing us to consider our sensations, which includes associating and distinguishing them. But this is as far as it goes: we have no higher level system that makes us aware that we are introspectively aware of what we are perceptually aware of. We have impressions of apple pie (the sensation of apple pie taste), we have impressions of our impressions of apple pie (the introspection of the sensation of apple pie taste) but we do not have impressions of impressions of our impressions of apple pie. Our introspective system (or reflexive system if preferred¹⁶) reports on our perceptual system (which reports on external systems), thus allowing us to articulate just how we associate, distinguish and categorize external objects we are perceptually aware of. But we have no higher system that reports on our introspective system. In theory, such a system would allow us to articulate just how our introspective system associates, distinguishes and categorizes sensations we are aware of through the introspective system. Such a higher level

¹⁶If we prefer not to use terms that are already theory laden, we can replace “introspective system” with “reflexive system”. I will use both, emphasizing my loose use of the term “introspective”.

system would probably be, evolutionarily speaking, overkill. If sensations are identical to brain states, as the identity theorist would have it, then this theoretical higher system would allow us to articulate some physical properties of these brain states depending on what metrics our introspective system might use to associate and distinguish sensations (i.e. the brain states the introspective system reports on). This is the precise image I have in mind – but let me do a little more story-telling to explain just why I believe this image is so powerful in the hands of a materialist.

Imagine a creature that has an underdeveloped introspective system. Such a creature would not be reflexively aware that they are aware of external objects¹⁷, or at least only to a very limited extent, depending on how underdeveloped their reflexive system is. Basic robots that very simply respond to visual stimuli could be considered such creatures. Jellyfish, in so far as they very automatically react to differing light stimuli could also be considered an example of such creatures. However, I will need something with a brain for this story: I will use goldfish, tentatively assuming they are not highly capable of becoming aware of what they are perceptually aware of. Now, normal people, I assume, do not ask themselves how they manage to introspectively distinguish and associate sensations. Similarly, normal goldfish, I assume, do not ask themselves how it is possible that other goldfish *perceptually* distinguish, say, predators from food (evolutionarily speaking, these would probably be pretty useless thoughts). But just as there are odd philosophers of mind, we might imagine

¹⁷Armstrong et al., *Consciousness and Causality*. Humans are sometimes like these creatures. The case of the long-distance truck driver, driving on “auto-pilot” is one example. I believe those with blind-sight are another example, with respect to their visual systems.

some odd goldfish that *do* ask themselves these questions: call one such aquatic philosopher, Goldie. In so far as Goldie can distinguish goldfish from other animals and plants, in so far as she can recognize that these goldfish behave in a pattern-like manner (fleeing from predators but making b-lines for food), in so far as Goldie is curious about what mechanisms must be in place to explain this phenomenon (this is the philosophical personality of Goldie) and finally, in so far as Goldie's brain is capable of some basic reasoning, it is conceivable that Goldie might reason to the conclusion that goldfish have perceptual systems that let them distinguish predators from food. This will be a revelation to her: she will not know this intuitively, precisely because she has no internal system that reflexively reports on her perceptual system. She just distinguishes external objects automatically, unaware of the basis upon which she does so. She might even have some mysterious notion of the qualitative character of "what it is like to look like seaweed" or "what it is like to look like a goldfish": she would be unable to articulate that seaweed is green, tall and thin while goldfish have a small, white and orange body with wavy translucent parts attached (their fins). Nevertheless, we can agree that Goldie's lower level perceptual system (whose workings she is blind to) is distinguishing objects in her visual field based on characteristics at least somewhat like these. From Goldie's perspective though, these characteristics that she may have identified by doing her science of perception, will seem completely unrelated to her utterly mysterious notion of the qualitative "look" of these external objects.

However, after pondering long about all this, she might finally accept a story similar to the one I have told, on the basis that it is the most economical story that accounts for the observable phenomena while also at least accounting for why these qualitative "looks" *seem* mysterious and unintelligible in physical terms. These "looks" feel mysterious, and will

probably always feel mysterious, because these naturally arising concepts have little weight or connectivity with other concepts in her conceptual network. These concepts of the “looks of certain external objects” arise automatically and their roots are invisible to her. She will only be able to fully understand and articulate these “looks” in a roundabout manner – namely by completing a very lengthy and third-personal account of goldfish perception systems. And she will no doubt have a very difficult time properly drawing the connection between her nebulous naturally occurring concept of “what it is like to look like a goldfish” with her concrete description of what goldfish look like, elaborated in terms of the characteristics her perception systems use to distinguish goldfish. Her naturally occurring concept will be very vague but something intimate, while her concrete description will be rather precise but very foreign and far removed from her. Nevertheless, if she tells herself a story like the one I have just told, she might come to believe that marking a strong correspondence¹⁸ between the concepts, is indeed the most sensible thing to do, dismissing the apparent mysteriousness of these “looks” as an artifact of her having *blind*-sight. Both concepts, she might tell herself, refer to the same thing namely, certain physical properties of goldfish and seaweed that her perception systems pick up on.

Of course everything I have just said could apply analogously to humans: I would suggest we have some kind of blind-innersight (or blind-reflexive-sight if preferred) and the mysteriousness of our qualia is an artifact of the *blindness* of this innersight. Our reflexive-sight has developed so as to distinguish and parse our inner states such that we can now

¹⁸I am not sure I can say the concepts are to be *identified* with one another, at least in any very strong sense: it seems they will always be numerically distinct concepts, given the different weights these concepts have in our conceptual networks and given that one is intimate and naturally arising while the other is foreign and removed. By using the word “correspondence” I hope to attenuate my claim.

perform certain actions (e.g. articulate why we categorize certain perceptions the way we do). However, because we are not naturally privy to how this innersight functions, the naturally arising concept of the qualitative character of an experience, is rather weightless and of a limited role in our conceptual network. Because we are not naturally privy to how this innersight functions, qualia and why we distinguish them the way we do, becomes a mysterious topic, with qualia becoming nearly impossible to articulate in concrete terms¹⁹.

Meanwhile, we have done our science and proposed certain concrete descriptions of our inner brain states. If my story is correct, it is perfectly acceptable to mark a strong correspondence between our naturally arising concepts and some of our concrete descriptions of inner brain states: the descriptions elaborated in terms of the characteristics that our reflexive systems use to distinguish inner brain states. I would claim that the foreignness of these descriptions and the seeming incongruity of connecting them with our naturally arising intimate concepts has been satisfactorily explained by my materialist picture here. Said foreignness and incongruity can no longer be used to attack materialism.

My story is complete. Briefly, I want to consider the import of this story on Kripke's modal argument against Identity Theory, as elaborated in *Naming and Necessity*. As Levine suspected, now that I have at least the foundations for bridging the explanatory gap, I believe that I will also be able to dismiss Kripke's objection to identity theory.

¹⁹If it appears that I speak ambiguously of qualia in this paragraph it is because I am trying to remain agnostic about what sort of entity it is. I hope to provide a picture that can be married with any picture of what kind of entity qualia are.

Recall, Kripke's argument hinges on the premise that the identity theorist is incapable of furnishing an explanation of why the identity "pain = C-fiber firing" appears to be contingent, when in fact, if true, it must be necessarily true. For other necessary identities that appear *prima facie* contingent, such as "heat = motion of molecules", the following explanation is available: it appears contingent simply in virtue of our being able to imagine circumstances under which sensations qualitatively identical to sensations of heat might arise, though they would be caused by something other than true heat. Or in other words, we can imagine scenarios in which arise within us, qualitatively identical epistemic states to states of being aware of heat, though in the imagined scenarios the states are caused by stuff that is not truly heat. However, according to Kripke, such explanations for the seeming contingency of "pain = C-fiber firing", are not available, precisely because pain *is* a sensation, or in some fashion, being epistemically aware of one's pain *entails* there always being pain.

I would suggest that explanations for the seeming contingency *are* in fact available to the identity theorist. I would take what Kripke showed to be a failed explanation and slightly modify it to make it work. Instead of talking of qualitatively identical sensations or epistemic states arising in imagined scenarios, we should talk of a qualitatively identical *awareness* of sensations or qualitatively identical *introspective* epistemic states arising in imagined scenarios. By retreating further back into the mind, I can now say, for example, "pain = C-fiber firing" is seemingly contingent in virtue of the fact that we can imagine scenarios in which qualitatively identical *introspective* epistemic states arise though caused by fundamentally

different *perceptual* epistemic states²⁰ (or sensations fundamentally different in their physical make up). This is more or less just to point out that my posited introspective system is separate in some important way from our perceptual system and that this distance allows for discrepancies to be missed or ignored by the introspective system's report on the perceptual system.

Kripke might try to make the claim that we do not need to posit a separate system to explain how we become aware of our sensations, outright denying my picture. He might claim we just spontaneously become aware of our sensations. But surely this will come at some serious costs. First, it seems that he might be forced to add our spontaneous awareness of qualia to the list of nomological dangler phenomena: our spontaneous awareness would have to be understood as some kind of brute fact of qualia, or perhaps only explainable in terms of Gods design when setting up the world²¹. But beyond this, this auto-magical picture flies in the face of the following intuition the reader might share with me: if we need a perceptual system to become aware of external states of affairs, then by analogy, should not we assume by default that we also need an introspective system to become aware of internal states of affairs? In other words, should we really allow Kripke to so immediately collapse the notion of there being an introspective system any sort, physical or not? I do not think we should. For these reasons, I find this potential evasion costly and unappealing.

²⁰I am construing "epistemic state" very broadly. An example of a perceptual epistemic state would be the sort of low-level awareness of external objects exhibited by goldfish, long-distance truck drivers and those with blind-sight.

²¹ Kripke, "Naming and Necessity", 332.

To summarize then, I hope to have elucidated at least one aspect of the mysteriousness of qualia, and elucidated it with a story compatible with materialism. This story depicts us having some sort of blind-innersight that allows us to automatically distinguish and parse the inner states of our mind. Because this innersight is *blind*, that is, because its functioning is invisible to us, there naturally arises within us only a vague, inarticulable “what it is likeness” of an experience. As incredible as it may seem, we can very reasonably mark a strong correspondence between this naturally arising concept and some collection of physical concepts about our inner states, concepts built through a lengthy and third-personal process; it is reasonable to do so given that we can now explain away the feeling of there being an unbridgeable gap between our natural concepts of qualia and the foreign, third-personal concepts. The mysteriousness has been accounted for. Further, I would argue that because reductionist materialism is one of the most economical theories and because the mysteriousness of qualia can be explained, we *should* accept some form of reductionist materialism. Whichever physical terms with which we ultimately choose to make qualia intelligible, is not my concern, and far beyond my competence. For me, the goal was simply to open the path towards intelligibility, by accounting for the mysteriousness of qualia with a materialist picture²². I hope to have done so, and having done so, I am confident the explanatory gap can be filled in: in many ways, the gap relied on the mysteriousness of qualia. Finally, I have suggested that with my materialist picture in hand, we might also

²² Levine, “Explanatory Gap”, 360. For example, with my picture, we might deal with Levine’s “alien standards” objection in the following manner: I can agree that we *will not* find an *intuitively* satisfying standard by which to measure our closeness to certain aliens, but I can account for this fact with my materialist picture. However, if I am correct, the proper measure will be one that compares the similarities between our introspective systems and their introspective systems, as well as their inner brain states: if we parse our inner states the same way they do, and our inner states are similar enough (according either to functionalism or identity theory), we can claim that the aliens are aware of the same qualia we are aware of.

dismiss Kripke's modal argument: an explanation for the seeming contingency is perhaps available for the materialist after all.

I cannot quite conclude here however: I must recognize at least one important vulnerability in my picture. Being a materialist picture, *the picture must actually agree with neuroscience* to some important degree. Whether this is the case or not, is unknown to me. However, I would not want to misrepresent my picture: I do not expect us to find in the brain a neatly delineated region labelled "reflexive-sight system". I suspect the actual setup will be infinitely more complicated. I should also note that this reflexive-sight system might be more or less developed and ranging in complexity depending which systems we are studying (auditory, visual... etc.). In his forthcoming *Pain: Perception or Introspection?* Aydede has suggested that certain systems, such as our pain systems, are made up of a blend between perceptual and introspective systems: such cases will no doubt be particularly complicated. But so long as a picture relevantly similar to the simplistic one I have sketched is available, I believe materialism can mount a strong defence against the explanatory gap, using my picture as its foundation.

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