What Is It Like to Know?

Ari N. Schulman

If I asked you about art you’d probably give me the skinny on every art book ever written. Michelangelo—you know a lot about him. Life’s work, political aspirations, him and the pope, sexual orientation, the whole works, right? But I bet you can’t tell me what it smells like in the Sistine Chapel. You’ve never actually stood there and looked up at that beautiful ceiling… You’re an orphan, right? Do you think I’d know the first thing about how hard your life has been, how you feel, who you are, because I read Oliver Twist? Does that encapsulate you?

So says Robin Williams, as a world-weary psychologist, to Matt Damon’s callow boy genius in the famous park bench scene from Good Will Hunting. Meant as a rebuke to the young man’s conceit, the speech also inadvertently describes one of the most important thought experiments in contemporary philosophy, an experiment that itself scolds a central conceit of modern intellectual life.

Dubbed the “knowledge argument,” the thought experiment was proposed by Australian philosopher Frank Jackson in a 1982 paper. It was posed as a challenge to physicalism, the school of thought that holds that the mind is purely material, made solely of the stuff of rocks and meat, fully explicable by physics and chemistry. Physicalists regard the commonsense view that the mind is special—whether because it’s self-aware, can think and feel, or has free will—as an illusion.

Aiming to refute physicalism, Jackson asks us to imagine a scientist named Mary, who is so brilliant that she acquires all of the “physical information there is to obtain” about the workings of vision. Mary, that is, learns everything there is to know about how various wavelengths of light stimulate the retina, the neurology of the visual processing system, how this system interacts with the speech centers to produce spoken descriptions of images, and so on. The catch is that Mary has lived her whole life in a room in which everything is entirely in black, white, and shades of gray, including her books and the TV monitor she uses to investigate the world.

One day Mary is released from her room. For the first time, she sees colors with her own eyes. The question is: Does Mary learn something new?

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The intuitive answer for most people is: yes, of course—Mary learns what it is *like* to see color. She learns about the redness of a rose, the blueness of the sky. But recall that Mary already knew everything physical about vision. So whatever it is that Mary learns is not encapsulated in physical descriptions. We can conclude, then, that there are such things as *nonphysical facts* about vision, meaning there must also be *nonphysical properties* of vision. In short, there *is* something special about the mind, and physicalism must be false.

The conclusion may strike many readers as obvious, but physicalism is the orthodoxy among today’s physicists, biologists, and philosophers of mind. To the physicalists, their position is the beginning and the end of the modern scientific project: in principle, a core metaphysical commitment that distinguishes modern science from its forebears; in its particulars, the final theory that is supposed to await us on the distant day when science is finished.

Peruse the pop-science headlines on any given day and read about how “we now know” that the love you feel looking at your child is actually just oxytocin in the limbic centers of the brain, a development that just happened to help our ancestors outbreed their neighbors, who apparently felt for their children the way we do about a plate of wet bread. The sense that your soul just died is a sign that you are now bending properly along the great de-spiriting arc of history. Thus, the knowledge argument seems to provide a welcome bulwark against the rising tide of physicalism, a relief to those who believe that love is love, whatever else it might also be.

Of course, as clear and intuitive as it first appears, Mary’s Room, like every other question of mind, is not nearly so simple. It would be surprising if a centuries-old philosophical project could be crumbled at its foundations by the kind of lesson taught to four-year-olds in preschool. Fittingly, then, despite three and a half decades of sustained discussion, the knowledge argument has apparently not won a single academic convert to dualism, the opposing set of theories holding that the mind is not entirely physical, or that mental and physical properties are distinct. Though it is now perhaps the go-to example of an argument against physicalism, philosophers have offered compelling reasons to doubt it. The knowledge argument seems largely to have entrenched the opposing sides, providing each with an ever more elaborate set of rationalizations for its existing views.

Physicalism and dualism are conventionally seen as enemies, and with good reason. Each position is as much a sustained rejection of its opposite as it is a positive program of explanation in its own right. But as we will
see, the mutual hostility of modern physicalism and dualism conceals a deeper convergence.

Understanding the thought experiment requires a return to foundational concerns about how we move past subjective experience to achieve objective knowledge of the world. These questions in turn point back to the genuine mystery of mind—of how it is that certain bits of dust, arranged just so, become capable of pondering the infinite.

**Physicalist Replies to the Knowledge Argument**

There are certain facts that can be learned only “from one point of view”—from a subjective perspective. So argues Thomas Nagel in his landmark 1974 paper “What Is It Like to Be a Bat?” Such subjective facts are what philosophers call *raw feels, phenomenal properties, or qualia* (from Latin for “of what kind”). They are facts about sensation, or what it is like to have some experience. Qualia are the basic units of experience: redness, pain, the wetness of water, the taste of sweetness. Nagel argues that qualia define consciousness itself: “fundamentally an organism has conscious mental states if and only if there is something that it is like to be that organism.”

The general approach of dualists is to demonstrate that qualia are an additional set of properties of the world, over and above its physical traits. The general approach of physicalists is to deny that there is anything extra about qualia. To the physicalist, it is only a mystical belief in the soul or in human uniqueness, abetted by the current incompletion of science, that creates the illusion that qualia cannot be accounted for by biology, chemistry, and physics. But just as we now know that the wet stuff in rivers and the fluffy stuff in the sky are all the same molecule made of hydrogen and oxygen, so too will sensations someday be shown to be the same thing as certain physical events.

With this sketch in mind, we can consider the most important lines of criticism of the knowledge argument.

The physicalists’ first line of reply is that Mary gains new abilities, but not new knowledge. Laurence Nemirow writes:

> Some modes of understanding consist, not in the grasping of facts, but in the acquisition of abilities… I understand the experience of seeing red if I can at will visualize red.

David Lewis, one of the most insightful critics of today’s dualist theories, adds that seeing red allows you to “remember, imagine, and recognize”
various experiences of red. But these abilities do not amount to “the possession of any kind of information.” Recognizing the shape of a C-38 locomotive by sight “doesn’t enable you to write down the geometrical description” of it. Likewise, knowing the complete geometrical description of a locomotive doesn’t necessarily enable you to identify it by sight.

This reply offers a distinction that will prove crucial and vexing—that between ability and information, or knowledge of how to do something and knowledge that something is the case. Factual information can contribute to ability, but they are not the same thing. As Lewis points out, “That’s why music students have to practice.”

A second, more popular reply is that Mary gains new acquaintance with what she already knew. Paul Churchland, a prominent physicalist, says that the knowledge argument has the following structure (modified here for clarity):

Premise 1: Before leaving the room, Mary knows everything there is to know about brain states.

Premise 2: After leaving the room, Mary comes to know something new about sensations.

Conclusion: Sensations have some property that brain states don’t, so they are not identical, and physicalism is false.

But, according to Churchland, the argument equivocates. It sounds as if “know” has the same meaning in both premises, when in fact the two uses refer to two different kinds of knowledge. Before leaving the room, Mary has knowledge by description. After leaving the room, she has knowledge by acquaintance. The difference, explains Churchland, is “in the manner of the knowing, not in the nature of the thing(s) known.” So the conclusion that brain states and sensations are different things, with different properties, doesn’t follow.

The German philosopher Martine Nida-Rümelin, an innovative dualist and a strong defender of the knowledge argument, clarifies Churchland’s point by offering a modified version of the Mary’s Room thought experiment. Remember that Mary already knows what colors particular objects like stop signs and ripe bananas are, so if someone were to bring these objects into the room, she would be able to name their colors. So instead, suppose that someone brings Mary objects that are randomly colored—say, toy blocks. Again, Mary sees colors for the first time—but in this case, she cannot identify them.
This scenario, says Nida-Rümelin, shows knowledge by acquaintance, or knowing what it’s like. Mary becomes acquainted with colors whose descriptions she already knew, but at this point she is not yet able to relate correctly the new experience of each color with her knowledge of it. For instance, she may think that the color of the red block is what people call “blue.” Churchland and Nida-Rümelin agree that no learning has occurred at this stage, and so no disproof of physicalism. We can see this because Mary has not actually learned anything new about the world: she’s wrong about the red block being blue.

But, Nida-Rümelin continues, when Mary then leaves the room and sees the blue sky, she does learn something new: she learns that the color of the blue block she saw earlier is what people are referring to when they say the sky is blue. Mary acquires knowledge about other people’s experience (assuming they have normal vision). According to Nida-Rümelin, the knowledge argument only claims that Mary learns something in this final stage. Jackson himself has offered this interpretation, claiming that what Mary learns when she leaves the room is actually “truths about other people,” and that these are the truths missing from physicalism.

Notice how perplexing the debate remains: friends and foes of the knowledge argument alike use the ideas of acquaintance and know-how as proof for their own side. Both sides agree that, in order to prove some new property exists, one must demonstrate that Mary gains new factual knowledge of this property. And both agree that acquaintance and know-how do not count as this factual knowledge. Their disagreement is over whether Mary’s new acquaintance or know-how leads her to learn some additional fact, the kind of knowledge that can be conveyed in sentences. But dualists are in a difficult position, because of course the very premise of the knowledge argument is that Mary already began with all conveyable factual knowledge about color.

The difficulty for dualists here applies more generally. Dualists argue that what Mary learns is some piece of self-knowledge, or some knowledge about other people. Now, we know Mary is inquisitive, so she very well might gain these things—but not necessarily. These bits of knowledge are all secondary to the experience, and are gained by reflection. Even the formulation that Mary learns “what it is like to see red” subtly separates the experience from the knowledge it imparts. Consider the point this way: our intuition is that babies and animals who had never seen color would gain the same thing that Mary does. But we would deny that babies and animals are capable of propositional knowledge, of knowing
facts stated in sentences. And even “I know what it is like to see red” takes this form.

The result is that dualist interpretations add complexity to the knowledge argument while weakening its initial intuitive force. Dualists have set themselves a perplexing task by making Mary’s experience the object of knowledge, instead of arguing that the experience itself is a form of knowledge.

The acquaintance and know-how replies, however, are at least as damning for physicalism. Physicalism is a unitary aspiration. Its thesis is that everything that exists is made of the same kind of stuff. For physicalists, there is nothing special about conscious things; we differ from rocks and bacteria only in degree of complexity. We must be entirely explainable, then, in terms of conveyable sentences about objective facts. Physicalism’s whole point is that accounting for consciousness cannot require any special mode of knowledge like subjectivity. Yet in responding to the knowledge argument, physicalists invoke paradigmatic examples of our subjectivity—sensation and action. This seems to be the exact special pleading that physicalism claims triumphantly to overcome. And physicalists are invoking subjective categories, no less, to refute an argument for the existence of subjectivity.

Qualia: Things without Stuff

In ordinary ways of talking, observed the psychologist Peter G. Ossorio, only objects straightforwardly “exist” or “are real.” Processes and events “occur” and states of affairs “obtain” or “are the case.” …Thus, to ask, “What exists?” is more than just to bias the answer in favor of objects. It amounts to hardly more than asking of everything “How object-like is it?” And, while there is nothing wrong with asking that, it seems unlikely to contribute appreciably to our understanding of things.

Ossorio’s point clearly damns physicalism, which regards a methodological premise of science—that physical objects are the paradigm of being—as a metaphysical conclusion proven in everything but the details. But it is less obvious that Ossorio’s point also damns dualism, or at least one of modern analytic dualism’s central explanatory concepts, qualia.

There is something peculiar about the notion of qualia. As Ossorio notes, one can naturally say that raindrops exist. But to assert the existence of the event of falling raindrops, one must use an awkward sentence like “The falling of the raindrops is real.” Events must be mashed into
nouns, and staked on the defensive “is real.” It’s as if events can secure for themselves only some metaphorical existence, derivative of the objects they’re made of.

Now consider the status of the “somethings” in “there is something it is like to see blue.” The words “there is” assert existence, particularly the existence of an object: “there”—right there, at that location in space I’m pointing at and you can see—“is some thing.” This is curious. The purpose of the phrase is to pick out precisely those traits that are not like physical objects—traits with no location or mass, that belong to particular subjects, and are not out in the world. Yet, as in the manner Ossorio describes, “there is something it is like” establishes a contrast with objects by appropriating the semantics of objects.

We should be similarly suspicious of qualia. Consider the structural roles they play in philosophical arguments:

- Qualia usually must be forcibly rendered from adjectives into nouns, blue recast as blueness.
- Made into nouns, qualia can now serve as the direct objects of sentences. Pieces of propositional knowledge about them can thus be formed. We can now say what Mary learns: Mary learns that what people see when they look at blue skies is blueness.
- As the objects of propositional knowledge, qualia can readily become straightforward facts about the world. Though these facts have a special epistemic status, they can be acquired in semantically equivalent ways to learning about physical objects: Mary learns that blueness exists just as Mary learns that rocks exist.
- Experiences must refer to things outside of themselves. Rocks are things we learn about by observing them, which requires that rocks exist on their own. Likewise, if blueness is something we learn about through experience, then blueness seems to exist independently of our experiences of it.
- Qualia can now account for the perplexing epistemological status of sensation. The trouble of explaining the felt aspect of experience is resolved by distancing it, making it just another thing experience refers to: Sensations are experiences of phenomenal properties. Seeing a blue sky is not an experience of a blue sky, or a blue experience of the sky; rather, it is an experience of the sky and of blueness.
David Lewis, then, is right to smile at qualia as “special non-physical thing[s].” Whatever dualist theories state about the nature of qualia, the way they are employed in philosophical language and argument makes them sound less strange by granting them implicit object-like status.

The norm among today’s dualists is to say that there is only one kind of substance—physical stuff—but that in living things, physical stuff can have two distinct kinds of properties, physical and mental. Under this scheme, the mind-body problem comes to be about explaining why the universe, in a few peculiar places, is divided up into two types of traits, and why each type is knowable only through its own epistemic mode, objective and subjective. To ease the difficulty of understanding the subjective, it is approached as a special case of the objective.

We should be quite skeptical of this scheme. Consider the difference between “what it is like” as a philosophical category and “what it is like” as an everyday phrase, an attempt to reckon with the complexity of lived experience. Antonio Damasio describes qualia as the “fundamental components” of sensations; the paradigmatic examples in the philosophical literature are redness and pain. Much like physical objects are composed of physical atoms, we might say that phenomenal objects are composed of phenomenal atoms. Seen another way, qualia are an attempt to explain experience through a generalized version of the classic theory of taste, in which every flavor, no matter how nuanced, is a combination of just five or six basic ones.

But in ordinary language, “what it is like” arises out of the demand of conveying personal experiences: What was it like the first time you fell in love? What was it like to be Jim and Huck floating down the Mississippi? What was it like to be Meursault, opening up to the gentle indifference of the universe? What was it like to be the first person to see the Earth from the surface of the Moon?

Unlike redness and pain, these qualia exist only for particular subjects in particular times and places. Though some of them are fictional, we do not seem to think that “what was it like?” is any less answerable in those cases. These cases cannot be accounted for if qualia are simply varying combinations of elemental phenomenal properties, inherent in the nature of things, available anywhere. In philosophy, “what it is like” is what constitutes experience at its most basic and universal, but in ordinary speech, “what was it like?” is the question one asks to get at experience at its most complex and particular.

But of course, these experiences can all be communicated in meaningful ways. We might call them literary qualia, for the distinctive way literature and art are suited to conveying them. Peter Hacker rightly argues
that “what it is like,” as a philosophical term, “does not indicate a comparison” or resemblance. But literary works convey experiences through a web of resemblances to other experiences, which requires the kind of associative fluency that belongs to talented writers and artists. Looking at real experience, it is difficult to avoid the sense that “what it is like” is not just a folk term but describes something intrinsic to the nature of experience, that the purpose of art will not be absolved on the day the science of mind is complete. Philosophy’s prevailing concept of experience seems to fail exactly where experience is most urgent.

Phenomena: Feels without Thoughts

We arrive then at the perplexing sense that dualism apes physicalism by creating special non-physical objects, while physicalism apes dualism by creating special experiential categories of physical knowledge. We can begin to make sense of this mutual parasitism by turning to a different debate, about the place of rational thinking in human experience, waged between the philosophers John McDowell and Hubert Dreyfus.

The debate seems to reveal fundamental fault lines in how philosophers understand the relationship between reason and experience. Dreyfus, a philosophy professor at UC Berkeley, made his name in the 1960s, critiquing early artificial intelligence researchers for treating cognition as essentially rule-based and abstract rather than felt and intuitive. Whereas AI researchers saw chess and physics as the best models for understanding the mind, Dreyfus emphasized informal everyday activities like stacking blocks and opening doors.

Then, in the 1990s, McDowell, a South African philosopher teaching at the University of Pittsburgh, argued that there was an important problem in the ordinary way our culture talks about experience. In a lecture series eventually published as the 1994 book Mind and World, McDowell notes that modernity has disenchanted matter, rejecting ancient and medieval views that rational forces are at work in the operations of the natural world. Experience seems to be part of that disenchanted world, since it is created by natural processes, such as perception. But then it seems mysterious how experience could also be rational, could serve as the basis for our beliefs about the world. Insisting that the disenchantment of nature cannot be overturned, McDowell instead argues that rationality must be at work in our experience, that reason pervades human experience at every level.

To Dreyfus, McDowell’s argument stinks of the view that abstractions and rules define thinking. As the influence of Mind and World grew,
Dreyfus leveled this critique in his presidential lecture at the American Philosophical Association in 2005, and a series of exchanges between the men followed in journals. In 2013, the book *Mind, Reason, and Being-in-the-World: The McDowell–Dreyfus Debate* appeared, in which a number of eminent philosophers, including Charles Taylor and Alva Noë, offered their takes. The volume shows how the debate has become a touchstone for old divides in philosophy. To Dreyfus and other critics, McDowell is carrying on the misguided Cartesian tradition of separating mind and world. To McDowell’s supporters, he seems not to have scored a victory for one side of the opposition between reason and experience but pointed a way past it.

Before turning to Dreyfus’s critique, let’s take up McDowell’s rather counterintuitive argument. In *Mind and World*, he describes a view held by many philosophers and laypeople alike: “how can we understand the idea that our thinking is answerable to the empirical world, if not by way of the idea that our thinking is answerable to experience?” Experiences seem to belong to a realm of physical laws, a realm composed of relations like *cause* and *effect*—for example, light bouncing off objects, then entering through our pupils onto our retinas, and so forth. It is just the idea that perception is a mechanical interaction with nature that seems to give us faith that it reliably informs us about nature. Knowledge, meanwhile, belongs to a realm of reasons, composed of relations like *correct*, *valid*, and *justified*. These two realms seem different in kind. In order for experiences to justify beliefs about the world, they would need to be subject to relations of justification, to be located in the realm of reasons. But we normally think that experiences can tell us about the world because they are *not* the product of our own rational deliberation, but are instead caused by natural events in the world.

To McDowell, this common view draws a boundary around reason, and makes experience into a force residing on the other side. It means that to have an experience is to be subject to “the causal impact of the world, operating outside the control” of free thought. Although this view aims to explain why we should be confident that experience reliably informs us about the world, it actually makes it mysterious how experience could justify any beliefs at all.

This is what McDowell (following philosopher Wilfrid Sellars) calls the Myth of the Given: the idea that experiences are external and prior to reason. Instead, McDowell urges that “we should understand what Kant calls ‘intuition’—experiential intake—not as a bare getting of an extra-conceptual Given, but as a kind of occurrence or state that already
has conceptual content.” What does McDowell mean by experience having “conceptual content”? Consider the language we have been using to describe experience, saying that it is composed of phenomenal qualities, bare sensations, and raw feels. These terms aim to get at the experience of experience, as it were, the sensation of blueness without the conceptual wrapper of “blue.” But consider another type of experience: what we might call concept-laden qualia or interpretive sensations, but which, for fun, I’ll call cooked feels. In contrast to raw feels, which are nonconceptual, cooked feels depend on concepts in order for them to be experiences at all.

Take the example of relief. A prominent hedge fund CEO, accused of some elaborate malfeasance, is standing trial and about to hear the verdict. The jury foreman reads the magic words “not guilty.” From the single bit of information in this auditory cue, a cascade is unleashed. The CEO’s face flushes red; his eyes water; his hearing clouds; his attention is consumed with the sensations of his body, the release of dread built up over years. These experiences cannot be understood without reference to what they mean for the CEO, a person with expectations, fears, and hopes, and now, a sudden knowledge of deliverance from imprisonment, ruin, and disgrace.

The case of the CEO’s relief may seem too complex to translate to the elemental qualia taken up in the knowledge argument. But concepts can be just as important to seemingly simpler experiences. Consider, for example, pareidolia, the common phenomenon in which the mind perceives familiar patterns in otherwise noisy images—the man in the moon, or a deity on a piece of toast. Or take the image at right: our vision interprets the central glyph as either numbers (13) or a letter (B) depending on whether it is read as part of a sequence of numbers or letters. Or consider Wittgenstein’s example of the duck-rabbit, which can be seen as either a duck or a rabbit, but not both at once.

So, we have cases in which concepts seem capable of reshaping the phenomenal element encapsulated. And at least a few of these experiences are not only altered by concepts, but cannot be coherently described without them, cannot be described without talking about what they mean. These examples suggest that the boundary McDowell describes and rejects, between the realms of concepts and experience, is at least porous—that there are kinds of experience that are bound up with the concepts we use to interpret them.
The Meaning of Experience

The difficulty for McDowell is that he does not point to just a few experiences that are conceptual, but insists that all experiences are conceptual. Hubert Dreyfus, in his critique in *Mind, Reason, and Being-in-the-World*, argues that McDowell has a grossly intellectualized view of human life, a criticism echoed by many other philosophers. Dreyfus argues that, for McDowell, “in order for the mind to relate to the world at all, every way we relate to the world must be pervaded by self-critical conceptuality,” or conscious reflection on what we’re doing.

To counter McDowell, Dreyfus points to experiences that are not characterized by self-critical conceptuality. So, borrowing an example from Heidegger, Dreyfus says that “when we are ready to leave a familiar room we not only do not need to think that the door affords going out… we needn’t apprehend the door at all…. Thanks to our background familiarity, when it is appropriate to leave, we are simply drawn to go out.” Or “in an unfamiliar city, we have to start to find our way by using concepts, but our situation gradually comes to make sense to us in a nonconceptual way as we learn our way around in it.”

Dreyfus calls this type of engagement “background coping” or “know-how.” The everyday world “is not made up of propositional structures to which we can affix bits of language.” When we are engaged in it, “we are not aware of what we are doing”—indeed, “total absorption” in the world means “that one is not even marginally thinking about what one is doing.” By contrast, Dreyfus accuses McDowell of a “transcendental” approach, holding that at even the most basic levels of “our perceiving, thinking, and acting we take up a distanced relation to an independent reality.”

But this is not what McDowell means. McDowell says that our experience can involve “conceptual faculties” because human beings, unlike animals, have not only a given nature but a second nature. The idea arises out of Aristotle’s notion of practical wisdom: “human beings,” writes McDowell, “are intelligibly initiated into this stretch of the space of reasons by ethical upbringing, which instils the appropriate shape into their lives. The resulting habits of thought and action are second nature.” Dreyfus, interpreting McDowell, generalizes the idea: “One could hold that any sort of absorbed coping, no matter how learned, would count as conceptual as long as it had become second nature; that is, as long as it was a natural propensity that has been taken over and shaped by a culture.”

But, Dreyfus argues, using second nature to explain how experience is conceptual suggests that our first nature—the way we are as children,
and any part of our experience we haven’t reshaped through reflection or culture—is formless and meaningless. In other words, Dreyfus claims that McDowell succumbs “to a social version of the Myth of the Given.” Dreyfus urges that we must instead treat our given experiential world as a “space of meaning.” This is a world of attractions and repulsions to which we respond fluidly: “our comportment and thought is governed by our unthinking absorption in an unthinkable background field of forces.”

We can now see how this debate about experience and thinking relates to the debate about the Mary’s Room thought experiment. Despite their mutual hostility, physicalism and dualism, at least in their modern analytic forms, both treat experience as something prior to interpretation, something given. That is Dreyfus’s side in the dispute with McDowell; notice the parallels between Dreyfus’s position and the arguments physicalists offer in response to the Mary’s Room thought experiment. David Lewis invoked “know-how” to claim that what Mary gains is not a new fact but something closer to knowing how to recognize a locomotive by sight. Dreyfus likewise uses “know-how” to claim that absorbed actions, like walking through a door, are not conceptual. The other strategy of physicalists is to relegate Mary’s learning to acquaintance, and though Dreyfus does not directly use this term, it’s clear that it falls under the unthinking, nonconceptual forces he describes.

For Dreyfus, conceptual activity requires thinking—that—a conscious, explicit relation to experience. The phrase “self-critical conceptuality,” as he uses it, is redundant. Interpretation is a secondary action, where we stick experiences in a bottle and gaze at them from a safe distance. This is the same problem we saw in dualist replies to the knowledge argument. Like Dreyfus, these replies do not view “raw” experience as constituting knowledge that anything is the case. And so dualists, if they are to make the knowledge argument disprove physicalism, must cast about for some secondary kind of knowledge created by Mary’s experience when she sees color for the first time.

**Physicalism’s Yin and Dualism’s Yang**

What emerges from the debate between McDowell and Dreyfus is a collapsing of distinctions like know-how, know-that, and acquaintance. Consider again the example of the door to leave the room. Dreyfus urges that because we can respond to the door as part of our “unthinking absorption in an unthinkable background field of forces,” we therefore “need not even respond to the door as affording going out.” But in contrast to, say,
walking into the wall, or performing a complicated geometrical analysis before concluding that the door is the optimal spot to leave the room, to fluidly open the door and walk out precisely is to respond to the door as affording going out. To say that we can respond without thinking about it is to say that the experience already is an interpretation of our world. The experiential field already discloses how things are—not how the world is in itself, but how it is for a particular subject, situated within it in a particular way.

Dualists and physicalists alike restrict the scope of our understanding in the same way Dreyfus does, setting conceptual interpretation over against embodied experience. The structure of the Mary’s Room thought experiment suggests that what we feel does not quite exist until we figure out how to squeeze it into a sentence. That which cannot be spoken of must be passed over in silence, though it will probably be explained soon in a headline about fMRI scans.

The hidden assumption that experience is external to reason implies that experiences do not mean anything, cannot tell us about the world. Yet it is just this alienation, the freedom of experience from distorting interpretation, that is also supposed to make experience reliable evidence of the world. The result is that physicalism and dualism are each beset with paradoxes, which their mutual parasitism tries to resolve.

Physicalism is self-consuming. Its aim is to prove that experiences are nothing but physical occurrences. But the physical sciences are built on observation, a kind of experience. Scientific objectivity is a methodical aggregation of many people’s subjectivity. And so physicalists must create an asterisk for experience as a special mode of knowledge, even though physicalism’s whole reason for being is to debunk experience as special. Physicalism assumes what it is sworn to deny, and can do so safely because its fantastic success has faded its origins far into the background. It is like a prince, born on the top floor of a castle built laboriously over centuries, now so high up that he can no longer see the bottom and scoffs when people tell him the castle is not aloft.

Dualism, meanwhile, must show how experience, shed of any conceptual wrapper, still constitutes factual information. The paradigm we have for this sort of undertaking—for obtaining facts about intrinsically idea-free things—is physical science. Thus are born qualia, those special non-physical things.

The intuition, on first hearing the knowledge argument, is that it points to essential elements of our experience, missed in our philosophizing—the feeling of blue, before we ever think about it. Indeed, it’s just the point of
“raw feels” to get at experience without concepts. But the idea of pure sensory experience, an experience that does not already interpret the world to us, is itself a philosophical invention, born out of the same ideas that physicalism takes to their logical ends.

In Living Color

The question still seems to present itself: what is the sensation of color, the blueness of blue? The image, of Mary leaving the laboratory and for the first time actually seeing the thing she has dedicated her life to studying, is more vivid even than Dorothy stepping out of the sepia house and into Technicolor Oz. There still seems to be something about the felt nature of experience that is not captured just by saying that experiences involve concepts. The hesitation arises because the separation of knowledge from experience runs both ways: just as our model of experience is something alienated from the intellect, our model of knowledge is something set apart from lived experience.

The ultimate impossibility of the Mary’s Room thought experiment is its assumption that knowledge is just information, a dead thing, that the ideal of understanding is something like a computer chugging Newton’s equations rather than Newton watching the apple fall. It is a view suggested in the borderline absurdity of the idea of a “nonphenomenal color concept.” This is a notion that is meaningful only abstracted away from a web of knowledge sustained by actual color experiences, a web in which Mary does in fact participate, though remotely. For what Mary is supposed to know at the outset was compiled over centuries of arduous investigation by people who really did see colors and were driven to understand their vision. The knowledge they gained did not mysteriously displace their experience but articulated and elaborated it, altering how they understood a way in which the world remained always still alive for them.

There is a subtle but profound shift in McDowell’s argument that occurs in his debate with Dreyfus. *Mind and World* begins by describing experience as natural and mechanistic, while reason is free and open-ended. This view poses the problem of how experience can be part of rationality. McDowell’s answer is to draw on second nature, on the fact that humans, as they mature, use their rational faculties to reshape their experiences.

In responding to Dreyfus, however, McDowell begins to argue in a different way. He offers the example of a chess master to illustrate how
experience is already bound up with interpretation: “the knowledge of why he is making his move, which he can express by citing the forces on the board, cannot be insulated from the ability he has, chess master that he is, to consider how cogent a justification the forces on the board provide for his move.” Dreyfus, by contrast, urges that we consider experience a “space of meaning” rather than something conceptual. But what emerges from this exchange is that it is just the way that experience intrinsically is meaningful that it is also implicitly conceptual.

“Experience,” argues McDowell, “discloses the way things are, whether or not its subject has the means to make those aspects of its content explicit in judgments or assertions.” To stop and recognize what the experience says—to utter the sentence “the door allows me to leave to the room” or “the sky is blue”—is not to impose structure where before there was none, but to gain a new cognitive stance toward meaning that was already fully present in the experience. The experience of experience, the blueness of blue, is one and the same as this meaning, this revelation of the world in relation to ourselves. To separate out the phenomenal as something extra from the physical is to demand that we account for the world twice over.

The question then is how mere mechanisms could be in the business of interpreting anything. To say that concepts can reside in physical things in the way we encounter them is only to raise more urgently the question of how concepts can reside in physical things as they actually are—of how matter can be such that certain bits of it come to know about each other. To say that experience inherently bears meaning, that perception already interprets the world to us before we ever reflect on it, is not to find a curious circumstance in which nature and reason are reconciled but to challenge how we find them set apart to begin with.

The PBS NewsHour recently aired a story about marine biologists studying the motion of plankton, a category of microscopic sea creatures that includes protozoa and the larval stages of crabs, urchins, anemones, and fish. Many of these species are spawned in the surf. But if they are to find food and survive, they must be transported away from the shore, often to lower depths. The assumption among biologists has long been that this transit is passive—the word plankton derives from the Greek word for “errant” or “drifter.” Though many can move themselves, the creatures are so small and slow that this motion was thought to be impotent against the power of the currents. It was thought that they could only propagate, like seeds on the wind, through force of numbers, staggered against chance.
While larger animals can be tagged and tracked, biologists had lacked any practical means of studying the motion of plankton. But then a team of biologists studied their movements under simulated currents in a laboratory. The researchers built robots that mimicked the creatures’ peregrinations, and released them into the ocean. From the robots’ motions, the biologists inferred that the plankton do control their movement, that they harness the regularity of the currents, now flowing in one direction at one depth, now in another direction at another, to reach the places they need to be to flourish at each stage of their life cycles.

Here are the lowest of lowly creatures, forming, over the ages, a life of joint motion with their world. Who is to say whether what moves them manifests as sensation? Yet somewhere along the path of development, mechanism emerges as feeling. Imagine these creatures evolved eons on, coming awake, standing outside themselves, the vertigo of grasping the ancient contingency that calls them yet from the deepest reaches. How miraculous it would seem to us, to be born to ride the waves.