Consciousness Explained

Chapter 12: Qualia Disqualified

[b]1. A NEW KITE STRING[/b]

Sometimes a string—any kind—gets so warped and tangled that at some point you do a cost/benefit analysis: is it worth your time to keep working on untangling the thing, or is it time to just get a new string? To Dennett, the decades long philosophical discussion about qualia has arrived at this point. And his vote is that we walk away from the concept of qualia and just get back to work explaining consciousness without it.

However, it's easy to see why qualia have had such appeal to philosophers:

"They started where anyone with any sense would start: with their strongest and clearest intuitions about their own minds. Those intuitions, alas, form a mutually self-supporting closed circle of doctrines, imprisoning their imaginations in the Cartesian Theater." (pp. 370 - 3710)

Philosophers have noted the various problems, but attempts to deal with them have made the literature even more convoluted. And now we've reached a point where it seems no one even agrees on exactly what, in the end, the concept must refer to. But there is no intuitively obvious alternative out there, so the debate rages on. The Multiple Draft Theory (recently supplemented with the concept of "Fame in the Brain" in recent essays by Dennett) is hoped to be an antidote, an alternative way of understanding consciousness while avoiding qualia.

Note that while the focus on this chapter is to discuss qualia in a negative light, Dennett is not proposing to refute once and for all that qualia are real. His aim is merely to show how little use qualia are and that traditional arguments based upon "obvious" intuitions aren't as obvious as advertised.

Dennett quotes from a book on the brain which soberly tells us that color does not exist "in the world", but only in the eye and brain of the beholder (p. 370). But this can't be right—eyes and brains are in the world every bit as much as rocks and pens. They have colors just as other objects do. And where is color in the brain- after all it's dark inside the skull. In what other sense could color exist? Modern science gives us a picture that includes wavelengths of light, reflective properties of surfaces, and a causal story to tell when photons hit the rods or cones in an organism's eye. But this story seems to leave color out.

Robert Boyle and John Locke took stabs at this conundrum centuries ago. Sensual properties like color they called [i]secondary qualities[/i], as opposed to [i]primary qualities[/i] like size, shape, motion, number, and solidity. Secondary qualities are the powers of things in the world (due to the combination of their primary qualities) to produce ideas in the minds of normal observers, such as the idea of red. Dennett wonders:

". . .what kind of thing is an idea of red? Is it, like a beautiful gown of blue, [i]colored[/i]—in some sense? Or is it, like a beautiful discussion of purple, just [i]about[/i] a color, without itself being colored at all? This opens up possibilities, but how could an idea be just [i]about[/i] a color (e.g.,, the color red) if nothing anywhere is red?" (p. 371)

He next turns to Wilfrid Sellars for one way of dealing with this problem. Imagine an ice cube of pink lemonade in a freezer where no one could see it. The cube would have the secondary quality of pink, but when someone opened the door and looked at it, that person would experience what he called the [i]occurrent[/i] property of pink. Occurrent properties only exist when a person is experiencing them—not remembering them later, but experiencing them in real time. This qualification is necessary because

". . .occurent pink is a 'homogeneous' property of something real. Part of what he meant to deny by this insistence of homogeneity would be the hypothesis that occurrent pink is anything like [i]neural activity of intensity 97 in region 75[/i] of the brain. He also meant to deny that the subjective world of color phenomenology is exhausted by anything as colorless as [i]judgments[/i] that one thing or another is, or seems to be, pink." (pp 371-372).

Occurrent properties are just one term created by philosophers to name that which has been exiled from the seemingly colorless story that science tells us. Others have included "raw feels," "sensa," "phenomenal qualities," "intrinsic properties of conscious experiences," or "the qualitative content of mental states". Then there is "qualia," the term Dennett uses to cover all those bases—but, he will argue, there are no such properties in reality.

His alternative (to keep the focus on vision) is that "the light-reflecting properties of objects cause creatures to go into various discriminative states, scattered about in their brains, and underlying a host of innate dispositions and learned habits of varying complexity. . .in place of Locke's 'ideas of red' we having (in normal human beings) discriminative states that have the content: red" (p. 372-373).

[b]2. WHY ARE THERE COLORS?[/b]

Dennett begins this section with what colors are [i]not[/i]. For various scientific reasons I won't get into, they are not wavelengths of light, nor are they surface

spectral reflectance properties of objects. Others have sought to internalize colors and identify them strictly with systems of brain states in observers, but Dennett rejects this path because it ignores the variation in the word that produces such states (p. 375).

Kathleen Atkins provided an alternative take on color which Dennett adopts here. In the trial of Julius and Ethel Rosenberg, it was revealed that the two engaged in a bit of spy-craft that will be familiar to anyone who regularly reads John Le Carre: a Jell-O box was torn in two, and each half given to one of two parties who had to be very careful about correctly identifying one another.

Because each edge was so loaded with informational complexity, it became a fool-proof identifier of the companion piece:

". . .an apparatus or transducer for detecting the shape property M, where M is uniquely instantiated by its mate.

In other words, the shape property M and the M property-detector that detects it were made for one another. There would be no reason for either to exist, to have been created, in the absence of the other. And the same thing is true of colors and color vision: they were made for one another." (p. 376)

This leads to one of Dennett's typical inversions of what first seems intuitively obvious. Intuitively, this is how the story goes: ". . .first there were colors—colored rocks, colored water, colored sky, reddish-orange rust and bright blue cobalt—and then Mother Nature came along and took advantage of those properties by using them to color code things."(p. 378) By "color code", he means the bright yellow of flowers, the warning red of the poisonous snake, the red of a ripe apple, etc—color codes helpful for animals to see.

But that isn't what actually happened. All the available evidence of the evolution of color vision points to the idea that it co-evolved with biological systems which, for one reason or another, needed to be seen (red apples advertise their ripeness and stand out, but this trick evolved gradually as animals likely to eat them developed color vision to see them, each system influencing the evolution of the other). It is not yet apparent that any sort of color vision emerged to discriminate inorganic coloring. It is mere coincidence that creatures able to tell the difference between red apples and green grass could also tell the difference between rubies and emeralds (p. 378). Thus, the inorganic world looks (to us) the way it does because of the way grapes and apples look to us, not the other way around. If we were all colorblind, it would be common knowledge that rubies and emeralds were "gred"—the same color as fire engines, grass, and all brands of apples (p. 379).

This applies to other sensory modalities as well—phenol-thio-urea is bitter in taste to a quarter of the population, and tasteless to the rest. Dennett raises an

interesting question: before there were human beings, was it bitter or tasteless (p. 379)? Of course, the question has no meaning.

If indeed secondary qualities are intimately tied to certain classes of observers, there are weak and strong ways of making the connection, which Dennett captures by the terms “lovely” and “suspect”. A woman trapped on a desert island, never seen by anyone, could have all the properties that would cause a normal human observer to describe her as lovely, whether or not such an observer ever saw her (the weak connection). But it would be impossible for her to be a suspect until someone thought of her as one (the strong connection).

Dennett is arguing that colors are “lovely” qualities—pointless to define without reference to a class of observers with the power to discriminate them (p. 380). They are like shape property M which the Rosenberg’s Jell-O box was uniquely configured to detect. And this is in part the reason why colors (or other properties we can detect) are so difficult to define—because “The only [i]readily available[/i] way of saying just what shape property M is is just to point to the M-detector and say that M is the shape property detected by this thing here. The same predicament naturally faces anyone trying to say what property someone detects. . .when something ‘looks the way it looks to him.’” (p. 382)

[b]3. ENJOYING OUR EXPERIENCES[/b]

Evolution endows organisms with dispositions to avoid and seek out certain objects and features in their environments. Most all primates—even those raised in captivity—are innately afraid of snakes. Most all animals express heightened awareness when they detect vertical symmetry—a good precondition of the fact that there is another animal staring at them, and useful to know.

These dispositions are in need of an explanation. Let’s stick with the examples of primate fear of snakes. Do snakes evoke in us an innate “snake yuckiness quale” and are we then reacting to [i]that[/i]? This cannot be an explanation because it merely passes the buck without telling us anything, rather like saying that conception is the cause of pregnancy and stopping there.

Then how is the following as an alternative?

“We find ourselves less than eager to see snakes because of innate biases built into our nervous systems. These favor the release of adrenaline, bring fight-or-flight routines on line, and, by activating various associative links, call a host of scenarios into play involving danger, violence, damage. The original primate aversion is, in us, transformed, revised, deflected in a hundred ways by the memes that have exploited it, co-opted it, shaped it.” (pp. 385-386)

Alas, this will not do for fans of qualia, for whom a reduction to “mere complexes of mechanically accomplished dispositions to react” (p. 386) aren’t what they mean by the term.

Take the neon color spreading illusion which is on the back of every copy of [i]Consciousness Explained[/i]. It causes human beings with normal color vision to think they are seeing a pink circle, when in fact there is nothing but a black and red grid against a white background (the color from the red lines of the grid appears to “bleed” into the background, making it seem pink).

For a variety of similar neon color spreading illusions, see this:

http://www.blelb.ch/english/blelbspots/spot05/expspot05_en.htm

What believers in qualia want to say about that non-existent pink ring is that “the way the pink ring seems to me right [i]now[/i], at this very moment, in isolation from all my dispositions, past associations and future activities. . . [i]That[/i], the purified, isolated [i]way it is with me[/i] in regards to color at this moment—that is my pink quale.”

However, Dennett sees this belief as the foundational source of confusion about consciousness, and it is the goal of this chapter to shake the reader’s confidence in it. Steps in that direction will come in later sections—first, Dennett employs a thought example concerning the role of dispositions to show what the qualofiles (his term for those who believe in qualia) are giving up in rejecting his “reductionist” explanation.

He asks us to consider what it would be like to be a Leipzig Lutheran churchgoer in 1720 hearing a Bach cantata for the first time. Biologically, we are not significantly different from such a person—but consider the vast difference in culture between us. Our understanding of music (even what gets to count as music) has been altered by centuries of experimentation and development, from Mozart to the Beatles to hip hop to electronica. Not only that, but most of us would lack central associations that Bach would have depended on in his audience:

“His chorale cantatas were built around chorales, traditional hymn melodies that were deeply familiar to his churchgoers and hence provoked waves of emotional and thematic association as soon as their traces or echoes appeared in the music.” (p. 387)

So to correctly and accurately imagine what such an experience would be for Bach’s original audience, we can’t just imagine hearing the same notes—“we must also prepare ourselves somehow to respond to those tones with the same heartaches, thrills, and waves of nostalgia.” (p. 387). In other words, we have to include the dispositions that audience would have had.

It would be hard, but not impossible, for a contemporary to position herself close to such an experience. Imagine a music scholar who had carefully avoided all experiences of post-1720 music her entire life, for example. But the best most of us could do is imagine what it would have been like in the abstract: it just isn't possible to jettison modern cultural baggage and exactly duplicate the mental states of our imagined 18th century predecessors.

To get a sense of how powerful that baggage can be, imagine if an unknown Bach cantata were discovered today. It plays on the radio, you hear it for the first time—and the first seven notes are identical to the opening of "Rudolph the Red Nosed Reindeer". You would be unable to hear and experience the cantata as it was intended, all because of the dispositions caused in you by your experiences of modern culture.

Qualia, however, are always invoked as features above and beyond anything merely dispositional or mechanical, but it is Dennett's position that it merely seems as if we have experience of such features—that in fact they are nothing but a richly complex and "idiosyncratic complex of dispositions" (p. 389). One common retort to this assertion is that one's "intrinsic quale" could change, without any of the associated dispositions changing. For instance, the raw experience one has of red could be switched to green tomorrow and vice versa with no effect on dispositions. This brings us to a topic that has been the subject of many a paper in philosophy—the case of inverted spectra.

[b]4. A PHILOSOPHICAL FANTASY: INVERTED QUALIA[/b]

Most of us (especially the philosophically inclined) have in our childhood happened upon a variation of an interesting thought: what if what I see when I see red things is what other people see when they see things we all call green? It seems as if there would be no way to tell if this were the case, as our verbal behavior will always be the same regardless of what we subjectively experience.

The science fiction film, [i]Brainstorms[/i], provides a potential thought example of how we might discover if this interesting possibility is true: person A puts on a brain-reading helmet, which feeds his or her experiences though a series of cables and mechanisms into the brain of person B. Say I'm person B and report that, amazingly, you see grass as purple and the sky as green? Would this prove that our experiences really differ? Not so fast—it would still be an open question whether the apparatus was working properly. In fact, "Designing and building such a device. . .would require that its 'fidelity' be tuned or calibrated by the normalization of the two subjects' reports, so we would be right back at our evidential starting point." (p. 390)

But the inverted qualia thought experiment evolved—if an intersubjective qualia comparison is forlorn, why not an intrapersonal comparison? Imagine that evil neurosurgeons switched the neuronal circuits from the rods and cones in your eyes while you slept, so you wake up, and viola—grass now looks red to you, blood looks green, etc..

But think back to the previous section—this by itself is not enough to prove what the qualophile wants to prove, because the reactive dispositions have been switched as well: "The edginess you used to exhibit in red light you now exhibit in green light, and you've lost the fluency with which you used to reply on various color-coding schemes in your life. (If you play basketball for the Boston Celtics, you keep passing the ball mistakenly to the guys in the red uniforms.)" (p. 391) That won't do. Those reactive dispositions can't be switched along with the qualia. They have to be "attached" to the same objects and colors in the world they were before the qualia were switched. That is the whole point of qualia, after all: to isolate something completely independent of reactive dispositions.

Here's a variation which is instructive in the way it also won't do: the evil neuroscientists perform the original switch but then another team reverses the switch, only just a little further up the processing stream. The reason why that won't work is fairly obvious—the original qualia along with their original dispositions are now restored. What is needed is for the second switch to happen after the qualia make their appearance in consciousness.

But that could only be done if there were a Cartesian Theater, a central location in the brain where consciousness happens. And there is no such place, as all the evidence attests. Discriminations in the brain involving colors and dispositions happen in several places over time in a tangled, inseparable knot, and most of them occur unconsciously and before a subject has the ability to report them—before the subject is conscious of them.

Here we come to another variation—imagine that the second switch happens gradually over time. A variety of experiments in visual adaptation suggest this could be the way to go. For example, subjects have worn goggles which turned their visual fields upside down and kept them on consistently for long periods of time. They eventually go from groping about and stumbling to being able to ski or maneuver a bicycle in street traffic safely.

Now that we've changed the scale of this thought experiment, we can isolate stages in the qualia switch. You might struggle at first to use the correct color words for what you see—the color words other people use, not those that initially come to mind. And, at first, if you felt edgy in the presence of green light, that edginess might at first still be present, but merely directed at a different class of objects. But eventually—or so we are asked to believe—all these eventually switch over. You no longer want to say that the sky is yellow or that grass looks red.

Once this transformation has taken place, what is it about the scenario that leads inexorably to the conclusion that the once inverted qualia have not also switched over along with their reactive dispositions, bringing us right back where we started? What rules out the possibility that all of the adaptations were pre-experiential? Dennett brings to our attention experiments with tinted goggles. Subjects at first experience distorted and hard to discriminate colors, but eventually "surprising normal color vision returns" (p. 394). So we can imagine the story this way, which should shake our confidence in the intended conclusion:

[i]. . .And as the adaptation proceeded, you often found to your surprise that the colors of things didn't seem so strange after all, and sometimes you got confused and made [/i]double[i] corrections. When asked the color of a novel object you said "its gr--, no red—no, it [/i]is[i] green![/i] (p. 394)

If, at this point, one insists on thinking that there can only be one way to tell the story—either the color qualia themselves have been adapted to, or they have themselves been re-inverted—one is simply letting intuition take the place of analysis, for there isn't anything we can find out that rules one interpretation out in favor of the other.

The subjects of the upside-down vision goggle experiments provide an interesting brake to any enthusiasm once could have that one or the other version must be right. In interviews, they were asked the question "Have you adapted by turning your vision right side up again, or by just adapting to it being upside down?"

The sorts of responses they gave depended on where in the adaptation process they were. The more complete it was, "the more the subjects dismiss the question as improper or unanswerable. This is exactly what the Multiple Drafts Theory demands: Since there are a host of discriminations and reactions that need to be adjusted. . .it is not surprising that as the adaptations in this patchwork accumulate, subjects should lose all conviction of whether to say 'things look the way they used to look' instead of 'things still look different, but I'm getting used to it.'" (p. 397)

The conclusion we are to draw from this isn't that Dennett has proven qualia inversion to be impossible, only that the certain conclusions we are directed to reach in such thought experiments are not as justified as many have thought.

[b]5. "EPIPHENOMENAL" QUALIA?[/b]

Frank Jackson's thought experiment about Mary the Color Scientist is famous—or infamous, depending on whether you find it convincing or not. It is a perfect example of an "intuition pump"—a story designed to exploit one's intuition about

a phenomena in order to force the conclusion the author wants. It should be noted that while Jackson himself still thinks the thought experiment says something important, he has turned his back against his former self: he now believes that arguments against physicalism that depend on intuition are fatally flawed.

Here is the basic idea: Mary is a prisoner in a black and white and grey world. She is prevented throughout her life by various means from ever seeing any other colors. But during her captivity, she has been very busy, for she has learned all the physical and scientific information that could ever exist about the brain and its ability to process color. So, when she is released into the world and sees color the first time, has she learned anything she didn't know before?

I think it should be mentioned at the outset that one problem with philosophical thought experiments in general is that they require the reader to set aside any pretence of plausibility. How, for instance, could the jailors prevent Mary from generating a colored phosphene by rubbing her eye? I mention this to make the reader aware of a host of problems Dennett could have addressed but didn't.

Jackson's conclusion, at least originally, was: yes, she learns something new (has color quale for the first time, one can suppose) and therefore physicalism is false, because her physical knowledge was "obviously" incomplete. She emerges from the prison and discovers for the first time what her complete knowledge of color neurology failed to tell her: what colors look like. That, anyway, is how most people like to imagine the outcome.

If that is how you imagine the story, then the following real life story (not taken from [i]Consciousness Explained[/i]) will strike you as an example of an actual Mary in action.

Sue Barry is a neurologist at Mount Holyoke College who was born cross eyed, which was not corrected surgically until she was beyond her second birthday. Because the developing brain makes so many of its crucial synaptic connections during the first years of life, her brain failed to develop normally and she was left without stereoscopic vision, the ability to see in three dimensions, though she didn't realize she lacked this ability until much later in life. (This provides another lesson in just how implausible Jackson's story is, for depriving Mary of color vision until well into her adult life could potentially impair her very ability to see color at all.)

When asked by famous neuroscientist and author Oliver Sacks if she could imagine what seeing dimension and depth would be like, she answered in the affirmative—she taught this stuff, so of course she knew exactly what she was missing.

Time passed, and eventually Professor Barry's monocular vision started causing her problems, so she went to a vision therapist and was given exercises designed to exploit the brain's plasticity. She taught her brain to use both eyes to process stereoscopic vision.

The result: when she finally was able to perceive objects "floating" in their own space—when space itself was among the things she could detect—she discovered that it was completely unlike what she had imagined, despite her scientific expertise.

You can hear the story in more detail here:

http://news.wnpr.org/templates/story/story.php?storyId=5507789

Alas, something like Sue Barry's failed act of imagination is what most people imagine themselves when they hear the story of Mary the color scientist and agree with the intuitively obvious conclusion. That is, they think Mary is doing what Sue tried to do, and like Sue, must inevitably discover something surprising and new about her perception.

But that is incorrect. In fact, if you imagine the story this way, you aren't following the directions. Dennett explains it this way:

"The reason no one follows directions is because what they ask you to imagine is so preposterously immense, you can't even try. The crucial premise is that 'She has all the physical information'. That is not readily imaginable, so no one bothers. They just imagine that she knows lots and lots. . ." (p. 399)

He illustrates the meaning of this by describing an alternative ending to the story, where Mary's first exposure to color is when her tricky jailors bring her a banana they have spray-painted blue, and she immediately (much to their surprise) recognizes the trick. She describes how:

"So of course before you brought the banana in, I had already written down, in exquisite detail, exactly what physical impression a yellow object or a blue object (or a green object, etc.) would make on my nervous system. So I already knew exactly what thoughts I would have. . .I realize that it is [b]hard for you to imagine[/b] that I could know so much about my reactive dispositions that the way blue affected me came as no surprise. . .It's hard for anyone to imagine the consequences of someone knowing absolutely everything physical about everything!" (pp. 399-400)

As with previous examples in other sections, Dennett's goal here is merely to show that the conclusion the thought experiment urges is "obvious" only upon a question begging way of imagining how Mary can use her complete physical knowledge. We just don't know what it would be like to have "all the physical

information" or what one could do with such knowledge. So, if we can't imagine that, and can't imagine how that capacity could lead to Mary's knowing in advance what (for example) blue would look like, we have a failure of imagination, and not an insight into what must necessarily be so.

Color qualia are (or were) to Jackson epiphenomenal, but this term has meant one thing for philosophers (some of whom see the term being a safe haven for qualia) and another thing for cognitive scientists.

The psychological meaning was likely first introduced by Thomas Huxley in 1874 where it referred to a nonfunctional property or byproduct such as the whistle of a steam engine—something that is caused by the operations of the engine that actually do the work, but does not contribute to its locomotion. In the cognitive science literature, an example poised as a question would be this: when people are thinking hard and bite their lips or tap their toes, is that behavior epiphenomenal or an integral part of the process? (p. 402)

In this sense of the term, epiphenomena are caused and have further causes in the world, but simply aren't important to the process being discussed.

The philosophical sense is radically different: "x is an effect but itself has no effects in the physical world whatsoever" (p. 402).

It is also too radical, as Dennett goes on to explain: "Since x has no physical effects. . .no instrument can detect the presence of x directly or indirectly; the way the world goes is not modulated in the slightest by the presence or absence of x. How then, could there ever be any empirical reason to assert the presence of x?" (p. 402)

This makes it absurd for believers in qualia to want to say they are epiphenomenal—because if it is Mary's qualia of blue that her complete knowledge of color neurology leaves her powerless to predict in advance, and if that qualia is epiphenomenal in the radical sense, then that qualia can have no further effects: it can't cause her to go into a state we describe as "having learned something new"; she cannot react to it by saying, "That's what blue is like, wow!", and so on. In other words, she will behave exactly the same way, be in exactly the same states, whether or not she has the blue qualia (or any other sort).

So this sort of epiphenomenal qualia is forlorn, but there seems to be little hope that qualia lovers will accept that qualia are epiphenomenal in the more reasonable sense understood by cognitive science—because any sort of qualia understood in this way ("Qualia are local variations in heat generated by neuronal processes" – p. 405) will be no threat to any form of physicalism, and if qualophiles are united in one thing, it is that there must be something wrong with that doctrine.

Readers of philosophy will also see right away that the distinction between the two senses of epiphenomenal apply to the arguments about zombies, as well. A Chalmers zombie is absurd because its qualia are epiphenomenal in the radical philosophical sense (Chalmers himself could be a zombie and never know it). But a zombie detectible by its epiphenomenally green brain would not be.

[b]6. GETTING BACK ON MY ROCKER[/b]

As Dennett winds the chapter down, he takes a bit of a breather and brings up a scene discussed earlier in the book, a reminiscence of a time he sat on a rocking chair looking through the window at a beautiful summer day, listening to Vivaldi. He described how the imperfections in the window glass caused the branches outside to wriggle in concert with the music as he rocked, wondering to himself:

"How could any combination of electrochemical happenings in my brain somehow add up to the delightful way those hundreds of twigs genuflected in time with the music? How could some information-processing event in my brain be the delicate warmth of the sunlight I felt falling on me. . .it does seem impossible." (p.407)

The point of bringing this passage up again is to touch lightly on how the theory developed thus far treats it, how it attempts to make the impossible at least seem possible.

Central to that task is the method of heterophenomenology: the text Dennett has produced about his conscious experience becomes the primary data to explain.

The first thing to keep in mind is that the text is, in a sense, abridged in multiple ways. It was written months after the event, so we can be sure that loss of memory—or creative construction of memory!—shaped what made the final draft. The text is a probe into the experience, and had that probe occurred while Dennett was rocking back in his chair (perhaps with a tape recording), there can be no doubt that the heterophenomenological text would have been quite different. But even in that case, the very act of a probe, and the act of framing a description in words, serves to reshape and redirect the final product (p. 407).

And that final text represents, of course, but a tiny fraction of the totality of contents of Dennett's consciousness that summer day. But Dennett's approach shuns the idea that those contents were present in totality within a "stream of consciousness". It merely seems (it is illusory) that all of the details the text describes were simultaneously present in his mind's eye. In fact, the brain has no resources (and no need) to represent the world in all that detail. Those details can stay out there in the world, to be discriminated partially one saccade at a time (recall the wall paper of Marilyn Monroes—you don't literally see all of them; your brain merely represents the wall [b]as[/b] covered with hundreds of detailed

Marilyns, without going to the needless trouble of “drawing” them for an inner observer).

The most counterintuitive aspect of the theory sketched in [i]Consciousness Explain[/i] is the restriction that is placed upon us by treating this text as the primary data. Dennett’s approach lets us say that there are real but un-recoverable facts about exactly what parts of his brain discriminated exactly which visual and audio features of his environment during that summer day, “but the sum total of those facts doesn’t settle such questions as which of these was he definitely, actually conscious of (but had forgotten by the time he produced his text), and which were definitely, actually in the ‘background’ of his consciousness (though he didn’t attend to them at the time).” (p. 408) To think otherwise is the equivalent of thinking that, though Conan Doyle didn’t specify, surely it is a fact whether Holmes had eggs or not the morning of a particular Holmes story.

By making heterophenomenological texts the primary data, the goal of cognitive neuroscience becomes giving “grounds for concluding that with a brain organized the way ours is, this is just the sort of heterophenomenological world we would expect”. (p. 410) This is a scientifically do-able project, whereas the philosopher’s focus on intrinsic qualia, independent of dispositions and other functions, is not.

Next, Dennett moves on to an examination of the Self, which he describes as the “Center of Narrative Gravity”—and surprisingly, that vision of the Self has much in common with the analysis one often finds in deconstructionist and post-modernist scholarship.

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