

HAROLD FROMM

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## Daniel Dennett and the Brick Wall of Consciousness

“Like” and “like” and “like”—but what is the thing that lies  
beneath the semblance of the thing?

—Virginia Woolf, *The Waves*

How could a physical system give rise to conscious experience?

—David J. Chalmers, *The Conscious Mind*

Only a theory that explained conscious events in terms of  
unconscious events could explain consciousness at all.

—Daniel C. Dennett, *Consciousness Explained*

*SWEET DREAMS*<sup>1</sup> IS BY NO MEANS THE BOOK you would want to start out with if you have never read anything by Daniel Dennett. There are two distinguished classics in his oeuvre to be read first, *Consciousness Explained* (1991) and *Darwin's Dangerous Idea* (1995), in that order. Dealing as they do with two of the most pressing themes in current philosophy (not to mention certain of the sciences), these books would rank pretty close to the top of my list of what every twenty-first century intellectual should know. *Sweet Dreams*, on the other hand, is a slight book that has been patched together from various talks, articles in professional journals, and newly written passages, all of which serve to tweak Dennett's major doctrines in the light of subsequent criticisms and rethinkings. Unlikely as it may seem, the book reads well—like everything else by Dennett. It's sheer pleasure to be in the company of a consciousness like this—if you could believe in consciousness at all after reading what he has to say.

Still, the basics are hardly in dispute in the matters of self, consciousness, and free will, given the extraordinary accomplishments of the neurosciences over the past twenty-five years and their assimilation by philosophers in the field of consciousness studies. Although there might be demurrals about particular points here and there, the current picture is clear enough. The brain involves somewhere between fifty and a hundred fifty billion neurons; let's say a hundred. These are a variety of fine, threadlike, long “brain cells” that are not only wound up inside the brain but that extend throughout the body to link to your brain everything from your big toe and five senses to your internal

<sup>1</sup> SWEET DREAMS: Philosophical Obstacles to a Science of Consciousness, by *Daniel C. Dennett*. MIT Press. \$28.00.

organs. Within the brain these neurons connect with each other via synapses across which neural impulses send electrochemical “messages.” The sheer number of connections is beyond reckoning, greater, it is said, than the number of stars in the universe. Besides registering the performance of the body, this network is the place where cerebration, emotion, and all forms of psychological experience take place. The sheer activity going on every microsecond means that our sense of the smooth continuity of our consciousness is a gross illusion, like the illusion of visual continuity. In the case of our eyes, 100 million rods and 7 million cones in our retinas—the receptors of light from the scenes we behold—send electrochemical impulses to the brain via neurons. Since our range of clear sight consists of a very small area directly in front of us, we are constantly refocusing our eyes and moving our head at the rate of several “saccades” (or eye movements) per second. This means that the smooth-seeming panorama that we view is completely redrawn several times a second, since every rod and cone receives a different light particle with each refocus. Just as we don’t hear the 44,000 interruptions per second between the samples of music coded on a compact disk, don’t see the individual frames of a movie film or the many redrawings per second of our TV and computer monitors, we are completely unaware of the pointillistic nature of our vision.

In the case of consciousness, an entirely new round of neuronal firings takes place every microsecond, some consisting of recursive repeats of signals already sent (producing stronger and more lingering effects), while most of the others occur so briefly that they are almost immediately lost. The information contained in these firings derives from the total system of our being, both bodily and mental, an influx again beyond reckoning. “You can’t cross the same river twice” is herein given radically new meaning. And if you don’t believe it, consider what happens when you’ve typed a long e-mail outpouring to a friend only to hit a wrong key accidentally or suffer a two-second power failure. The e-mail is lost in cyberspace. Can you write it again? There is no chance in the world that you can re-create that letter exactly as it was. Except for the most salient points, the rewrite will be a vastly different letter. You’re just not the person you were a few seconds ago; “you” have been redrawn. Despite all the continuity of what you take to be your “self,” there is no stable entity existing behind all the neuronal flux of your brain. Call it a soul, a spirit, a self: it just isn’t there. Or as Dennett likes to say, there’s nobody at home.

One of Dennett’s most striking satirical metaphors is the Cartesian Theater, an imaginary place in the head where a spirit or spook or self, usually referred to as an homunculus, watches the movies or stream of consciousness flowing through the brain. Descartes had centered it all in the pineal gland situated in mid-brain, but the concept of an internal viewer was doomed from the start by the infinite regress it entails, since where does the homunculus get his information from amidst the “pandemonium” (a favorite philosophic term to describe the frantic signalizings of the neurons) unless a prior viewer or organizer/indexer

has already gotten it all together? One then needs an infinite number of prior viewers to explain each viewer's knowledge.

In reality, as Dennett and most other neuroscience thinkers see it, there can be no center in a pandemonial system of a hundred billion neurons firing whole universes of signals. Since for Dennett there is no center where all their *parallel* inputs are sifted into a *serial* stream to produce a coherent narrative assembled like a Jane Austen novel, he early on developed his theory of "Multiple Drafts," in which signals vie like sperm cells to get through to consciousness, with the winners serendipitously falling into a serial line that has come to be known as a stream of consciousness. No Central Intelligence Agency, so to speak, has selected or arranged them to produce a coherent story. This stream, assaulted on all sides by its rivals, is vulnerable to confusion, forgetting, self-contradiction, and whatnot. (It's amazing that we have as many periods of lucidity as we do.) In *Sweet Dreams*, Dennett updates Multiple Drafts into "Fame in the Brain," a new metaphor to describe the victorious emergences from pandemonium into consciousness, which he likens to the vagaries and happenstances of celebrity (e.g., Rodney King).

Since without an organizing center the self is purely virtual, there is no "I" to make the choices that could give any meaning to the expression "free will" (the "I" would have to be an homunculus that selects which firings get through, leading back to the infinite regress problem). This in turn leads to the big question, nowadays called the "Hard Problem" (as opposed to the "easy" neuronal one answerable from MRIs of the brain and other forms of reporting) of what exactly *is* consciousness if there's nobody home.

Enter "zombies."

*Sweet Dreams* updates Dennett's decades-long talk about zombies by introducing another one of his characteristic epithets, the "Zombic Hunch." And what is a zombic hunch or, for that matter, what is a zombie? A zombie is a philosophic term to refer to an imaginary creature just like us in every way except for its lack of consciousness. Why is such a creature even thinkable? Because, to refer to the epigraph above from Dennett, "Only a theory that explained conscious events in terms of unconscious events could explain consciousness at all." The unconscious events that lead to our consciousness are the zillions of firings already discussed. (After all, life is produced from non-life, unless you're hopelessly addicted to magic spooks. And how do you explain *them*?) If our consciousness is produced from multitudes of unconscious firings, then it is plausible to Dennett that a computer robot could eventually be produced (from multitudes of bytes via silicon chips that substitute for neurons) that could mimic real people without having to be conscious. "How can a little box on your desk, whose parts know nothing at all about chess, beat you at chess with such stunning reliability?" Dennett asks. Or to put it even more succinctly: it does not require consciousness to produce consciousness. (Or else you would fall into another infinite regress.)

“There is a powerful and ubiquitous intuition that computational, mechanistic models of consciousness, of the sort we naturalists favor, *must leave something out*.” But what is being left out? Nobody can quite say, and yet they insist “*that there is a real difference between a conscious person and a perfect zombie*—let’s call that intuition the *Zombic Hunch*.” But when you seriously think about it, when you realize the sheer involuntariness of our behavior and thoughts generated out of the whole pandemonium of neuronal activity that produces us, it does indeed become hard to say what is left out. If one compares a “perfect zombie” with an actual person whose consciousness has been produced by activity that is not conscious (as “life” has been produced from “mud”), what’s been left out, presumably, is “consciousness” itself. But what, to echo Virginia Woolf, is the thing that lies beneath the semblance of the thing? Now, alas, we’re going around in circles.

In the closing pages of *Consciousness Explained*, Dennett sums things up:

The phenomena of human consciousness have been explained in the preceding chapters in terms of the operations of a “virtual machine,” a sort of evolved (and evolving) computer program that shapes the activities of the brain. There is no Cartesian Theater; there are just Multiple Drafts [now Fame in the Brain] composed by processes of content fixation. . . . It is indeed mind-bogglingly difficult to imagine how the computer-brain of a robot could support consciousness. How could a slew of information-processing events in a bunch of silicon chips amount to conscious experiences? But it’s just as difficult to imagine how an organic human brain could support consciousness. How could a complicated slew of electrochemical interactions between billions of neurons amount to conscious experiences?

By the time we reach *Sweet Dreams*, another ongoing Dennettian concept reappears once again: heterophenomenology. This literally means the phenomenology—or conscious experiences—of another person, or what we would call a “third person,” as opposed to ourselves, the “first person.” Since it’s our own phenomenology that is the big question (our consciousness and experiences), and since there is no way an investigator can directly inspect another’s first-person reality—in other words, his subjectivity—which exists only for the “first person” himself, how can we hope to explore what first personhood, the essence of consciousness, consists of? (What is the thing beneath the semblance of the thing?) For Dennett, heterophenomenology, examining other people’s reports about their consciousness, observing their behavior, is good enough. Furthermore, if consciousness is ultimately composed of material particles (electrochemical firings), it ought to be as accessible directly and indirectly as the elementary particles of the physical sciences that we have inferred so much about from various types of signs.

In sum, for Dennett there is nothing extra or left out, no special

material of consciousness over and above what we can infer from other people's behavior and reports, especially when added to the increasingly sensitive "photographs" being taken of the brain in action. For Dennett, "consciousness" is a stubborn spook that some of us refuse to let go of. Just as the Vitalists believed that life was something added to matter—until the sciences demonstrated otherwise—there are "Mysterians" who insist that consciousness is something over and above matter. (But if it's not matter, what is it if the ghost in the machine has presumably been banished?) "A hundred years from now, I expect this claim [of something extra] will be scarcely credible," is Dennett's prophetic response.

In a famous essay, Thomas Nagel said that we can never know what it feels like to be a bat. Unsurprisingly, Dennett is not sympathetic to this stance since he believes that everything essential to this knowledge can be made accessible through third-person examination, even if bats can't talk. To support this, he has long accounts in his writings of yet another imaginary being who has become a staple of philosophers of consciousness, a person he variously calls Robo-Mary or Mary-Mary. Mary, a brilliant scientist-scholar, lives in a room without colors, entirely black and white. Her own body has been camouflaged to hide its colors and her TV and computer monitors are black and white. She has studied every aspect of color: light, frequencies, reflection, photons, you name it. There is nothing physical about colors that she does not know. "Mary had figured out, using her vast knowledge of color science, *exactly what it would be like for her to see something red, something yellow, something blue in advance of having those experiences.*" And so the various philosophers who tell this story finally ask: When Mary eventually emerges from her protected cell and sees a yellow banana, will she undergo an experience that she has never had before, despite all her knowledge? Dennett says no.

On this matter, my impression is that he is quite in the minority. If we turn to neuroscientists (as well as other philosophers that Dennett sees as "reactionaries"), we find responses like this:

A conscious human being and a photodiode can behave similarly, at least under certain circumstances. They both can differentiate between light and dark. We know how the photodiode does it. We also know reasonably well how a human being can do it, since we know there are neurons in the retina and in the visual areas of the brain that fire differently, depending on the amount of light. But why should the human's, but not the photodiode's, ability to differentiate between light and dark be associated with a conscious experience of light or dark? Why should the firing of certain neurons in the human visual system generate a "quale" of light, a subjective feeling that there is light, while the voltage change in the photodiode does not?

The authors, Gerald Edelman and Giulio Tononi, conclude "that consciousness is embodied uniquely and privately in each individual; that *no description, scientific or otherwise, is equivalent to the experience of*

*individual embodiment* [italics added].”<sup>2</sup> I have carefully avoided introducing the philosophical term/concept “qualia,” a hornet’s nest threatening many needless stings. Edelman and Tononi’s “subjective feeling” will serve for present purposes.

Although Dennett has some allies in his view that consciousness is not something over and above the electrochemical firings of the brain (unless you want to start messing around with spooks again), he also has plenty of opposition. Most notable is David J. Chalmers, author of *The Conscious Mind: In Search of a Fundamental Theory*, and many papers and articles. Chalmers, like Dennett, is largely a “materialist,” but by no means entirely so, because he does not believe that materialism can answer the question, “What is consciousness?,” even if it can pretty well answer everything else. (“Materialism” as a concept in philosophy entails the belief that everything can be explained in terms of the physical sciences, without recourse to spooks.) Thus he—and especially Dennett in attacking him—speaks of himself as a dualist, risking the ignominy of that stance in a post-Cartesian world. But he adds, “It is an innocent version of dualism, entirely compatible with the scientific view of the world. Nothing in this approach contradicts anything in physical theory.”<sup>3</sup>

Chalmers’ book, and more effectively his article, “Facing Up to the Problem of Consciousness,” are mainly concerned to solve the problem of what consciousness adds to a purely materialist version of reality. In attempting to do so, Chalmers appropriates an everyday word: “The really hard problem of consciousness is the problem of *experience*. When we think and perceive, there is a whirl of information-processing, but there is also a subjective aspect. As Nagel (1974) has put it, there is *something it is like* to be a conscious organism.” This subjective aspect, the felt quality of experience, is what Dennett has reduced out of, distilled from, serious knowledge, instead explaining everything by means of third-person reportability. At the end of books like *Consciousness Explained*, Chalmers believes, “the author declares that consciousness has turned out to be tractable after all, but the reader is left feeling like a victim of a bait-and-switch. The hard problem remains untouched.” That hard problem is experience, “the most central and manifest aspect of our mental lives.” Is “experience” just another spook whisked in from a back door? “Experience may *arise* from the physical, but it is not *entailed* by the physical. . . . In particular, a nonreductive theory of experience will specify basic principles telling us how experience depends on physical features of the world. These *psychophysical* principles will not interfere with physical laws. . . . Rather, they will be a supplement to a physical theory.” Chalmers describes his outlook as a

<sup>2</sup> Gerald M. Edelman and Giulio Tononi, *A Universe of Consciousness* (New York, 2000), pp. 158, 208.

<sup>3</sup> Much more helpful than Chalmers’ *The Conscious Mind* is his brief and pointed article, “Facing Up to the Problem of Consciousness,” published in 1995 in the *Journal of Consciousness Studies* 2 (3), pp. 200–19. It can also be viewed online at <http://consc.net/papers/facing.html>. Most of the passages quoted from Chalmers are from the article.

“naturalistic dualism,” from which vantage point experience would be regarded “*as a fundamental feature of the world, alongside mass, charge, and space-time* [italics added]. If we take experience as fundamental, then we can go about the business of constructing a theory of experience.”

Chalmers shares the powerful intuition of most reflective human beings that there is something about consciousness over and above data processing, a position that Dennett well understands and for which he has a residual sympathy mixed with contempt: “It seems to many people that consciousness is a mystery, the most wonderful magic show imaginable, an unending series of special effects that defy explanation. I think that they are mistaken: consciousness is a physical, biological phenomenon—like metabolism or reproduction. . . .” Or to put it most strongly and conclusively, “It is a very good bet that the true materialist theory of consciousness will be highly counterintuitive (like the Copernican theory—at least at first),” which means that traditional philosophy will remain hung up on its “conservative conceptual anthropology until the advance of science puts it out of its misery.”

At this juncture, I need to take the risk—as an educated layman—of pronouncing judgment on these rival “solutions” to the maddening problem of consciousness, a problem far from being simply academic and that seems as important as the deciphering of the physical universe in telling us who we are.

I’ve been reading Daniel Dennett for several years now, feeling mostly edified by and acquiescent to just about everything he has to say. His neuroscience, his demolition of self and soul, his philosophical materialism and anti-dualism, his dismissal of “free will,” his promulgations of Darwinian evolution, and his blurring of the distinction between philosophical zombies and human beings all strike me as illuminating, even as I acknowledge that zombies lack “inner” understanding (but “inner” may just be a deeper level of “outer”). Indeed, in a recent essay of my own on the relation of consciousness to creativity and “free will,” the penultimate sentence reads: “If we’re robots, we’re pretty damned brilliant robots.”<sup>4</sup> It’s a fairly accepting “if,” not meant to suggest doubts about the neuronal network that motivates us but unwilling to deny the uniqueness of human understanding. So when Dennett claims he has explained consciousness, or that a computer program will someday simulate consciousness, I’m dissatisfied with a solution that essentially solves the problem by eliminating it altogether. The obsession that there is “something extra,” which he claims science will eventually put out of its misery, refuses to go away. It’s the feeling of being conscious (of experiencing “qualia”), which Dennett dismisses as an intuition as unfounded as the belief that the sun moves around the earth or that one’s soul has been installed by a “creator” at birth. I agree that evidence of qualia cannot be physically found anywhere and that qualia are like the Cheshire cat’s smile with the cat removed, but quali-

<sup>4</sup> Harold Fromm, “Muses, Spooks, Neurons and the Rhetoric of ‘Freedom,’” *New Literary History* 36 (Spring 2005), pp. 147–59. This can be seen online at <http://home.earthlink.net/~hfromm/Spooks.pdf>.

tative existence is felt nonetheless. (Will a computer program ever write “real” poetry—or just poetry that sounds like John Ashbery?) Dennett has walked a brilliant walk but finally is stopped by the brick wall of consciousness, even though he makes like someone walking right through it.

David Chalmers, on the other hand, while sharing a majority of Dennett’s insights, doesn’t buy the claim that consciousness has been explained. For him (as for me), it has simply been denied or evaded by being subsumed into the operation of neurons. It *feels* wrong, and for Chalmers *experience* is the concept (and reality) that has been neglected. But how successful has Chalmers been in defending, or substantiating, the reality of experience? His magnum opus of 1996, *The Conscious Mind*, consists of 414 packed pages, including the index. It starts out well, describing his dissatisfaction with a purely materialist treatment of consciousness, insisting that the feel of it is not something extra or supererogatory but is part of personhood itself (and to some degree animalhood). But things start to go downhill somewhat quickly thereafter. Pages and pages are devoted to densely peripheral byways of obscure philosophere, so peripheral in fact that Chalmers has put asterisks at the heads of these sections to indicate that they could very well be skipped! Good advice, since these passages lead nowhere. When he finally pulls out his plum of “experience,” we perk up, nod yes and hope for the best. Alas, a forlorn hope. Experience is not a spook? But on a par with mass, charge, and space-time? One gulps. After that, the descent is rapid. On page 277 we read:

For a final theory, we need a set of psychophysical laws analogous to fundamental laws in physics. . . . When combined with the physical facts about a system, they should enable us to perfectly predict the phenomenal facts about the system. . . . This is a tall order, and we will not achieve it anytime soon. But we can at least move in this direction. . . . The ideas in this chapter are much sketchier and more speculative than those elsewhere in the book, and they raise as many questions as they answer. *They are also the most likely to be entirely wrong.* [Italics added]

The center, it seems, will not hold. Things fall apart. I’m left with the Really Really Hard Problem: accepting as I do Dennett’s view that there is nothing to consciousness that is not physical, disbelieving in any sort of spooky extras, liking the idea of “experience” but suspicious of its veering into the *je ne sais quoi*, I am willing to entertain that this may never be solved. Yes, I agree with John Searle and others that hydrogen and oxygen in certain proportions metamorphose from gasses into something totally different: water, a slippery liquid. And maybe, in a sense, physically generated particles can somehow metamorphose into first-person reality. But once again, What is a thought? What is a thinker? What is the thing that lies beneath the semblance of the thing? I doubt that I will be around to learn the answer.