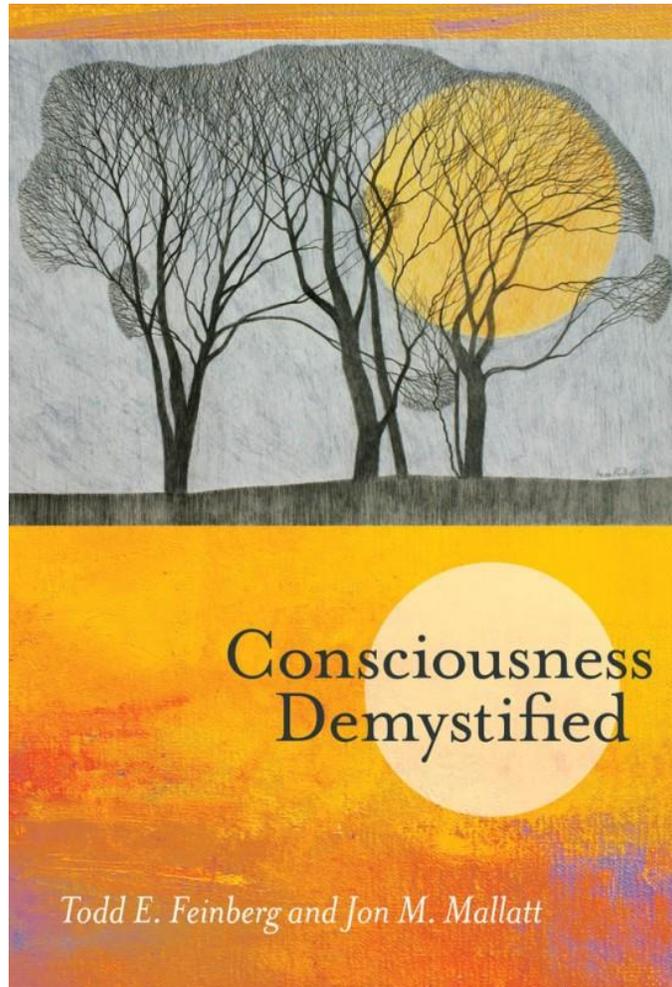


Todd Feinberg and Jon Mallatt's *Consciousness Demystified*

Review by Richard Brown, Ph.D.



Source/MIT Press

Editor's Note: Consciousness is often considered a mystery. How can the seemingly immaterial experience of consciousness be explained by the material neurons of the brain? There seems to be an unbridgeable gap between understanding the brain as an objectively observed biological organ and accounting for the subjective experiences that come from the brain. This new book attempts to sort through it all.

Todd Feinberg and Jon Mallatt are the most recent example of scientists engaging with philosophical ideas. *Consciousness Demystified* (MIT Press, 2018) is a follow-up to their 2017 book, *The Ancient Origins of Consciousness*, where they argue that consciousness emerged earlier in evolutionary history than is commonly thought.

The debate among philosophers over the nature of consciousness has tended to center on the dispute between the physicalist and the dualist. The dualist argues that mind and consciousness are distinct from the physical body and brain. The physicalist argues that mind and consciousness are in some way essentially physical.

Dualists emphasize that consciousness seems essentially subjective. In American philosopher Thomas Nagel's popular "What is it like to be a Bat?" paper in 1974, he argued that the experience of pain only exists from your point of view. This fits uneasily with the way we understand the physical world, which moves away from a subjective to a more objective point of view. But in the case of consciousness, peeling away the subjective aspect is to peel away consciousness itself.

In contrast, physicalists emphasize the causal role that consciousness plays in our daily lives. If consciousness is not a part of the physical universe, and if we can safely assume that every physical event has a physical cause, then consciousness would seemingly have no role to play in causing my behavior. In fact, if consciousness weren't physical, then even writing this review would not be caused by conscious experience.

Though debate continues, an uneasy truce was reached in the 1990s with the help of a handful of serious scientists and philosophers. In the 20 or so years since, there has been an enormous growth in the number of scientists studying consciousness; applying the methodology of their field to questions traditionally addressed by philosophers.

This gets us back to *Consciousness Demystified*, where Feinberg and Mallatt take a cue from American philosopher John Searle's theory of biological naturalism by calling their theory "neurobiological naturalism." Searle argues that the distinction between dualism and physicalism is mistaken and that each side identifies an important truth about consciousness. More specifically,

Searle thinks that while it is true that consciousness has an irreducible subjective nature (as the dualist emphasizes), it is also true that consciousness is a cause of our behavior (as the physicalist emphasizes). This is because consciousness, for Searle, is caused by and realized in the brain much as solidity is caused by and realized in the atomic structure of a solid object. Solidity is a higher-level emergent property caused by lower-level properties. In the same way, Searle contends, consciousness is a higher-level emergent property caused by the neurobiological processes of the brain. Searle has famously been unable to give an account of how the brain causes consciousness, leaving that work to neuroscientists.

Feinberg and Mallatt want to take up this challenge. They say that they want to bridge what philosopher Joe Levine calls the explanatory gap. In distinguishing between water and its chemical formulation, H₂O, for example, it would seem that if we knew the whole chemical/physical story, then we would fully understand why water behaves the way it does and has the properties it has. But, the argument continues, we might know just how the brain functions when we are experiencing red but still have questions about why that experience is associated with that functional process. Why does “redness” result when the brain is in this state instead of a different experience or none at all?

Early in the book, Feinberg and Mallatt argue that there are actually four explanatory gaps, involving referral, mental unity, mental causation, and qualia. Referral, they write, “means that sensory experiences are perceived not as if in the brain, where they are constructed, but as if in the outside world or inside the body... or as an affective state of positive or negative feeling.” With mental unity, the “gap appears between the divisible, discontinuous brain that consists of individual neurons and the unified, continuous field of awareness.” Mental causation is “the puzzle of how the subjective, seemingly immaterial, and objectively unobservable mind can cause physical effects in the material world.” Qualia, the internal and subjective experience of sensory stimulation—what touch, taste, or color feel like—“are perceived qualities of objects in the outside world or inner body or of one’s affective states, such as emotions.” The authors recognize that this last is where the traditional explanatory gap arises, and it is not clear that the others present explanatory gaps in the same way, but the authors are surely correct that an account of consciousness should explain all of these “neuro-ontologically subjective features of consciousness.”

According to the authors, to bridge these gaps we need to understand how something subjective like conscious experience could be physical and yet seem so mysterious. This, in turn, really amounts to two separate questions. One is, how is consciousness neurobiologically unique? The other is, why is consciousness epistemically unique?

Their examination of these questions is underwhelming and adds little to the scholarship on consciousness. They assume “that any brain that can create mapped sensory images has exteroceptive primary consciousness,” but this is highly controversial. Is it not possible to have unconscious visual representations? Given that they aim to close the explanatory gap, we should see some kind of explanation that would convince a skeptic that their claim was true.

What they offer falls short. In response to the question of whether tactile sensory representations in lamprey (a type of ancient jawless fish) brains are conscious, they simply assert that since “fish can perform high-level sensory discriminations based on sounds, visual characteristics, electrical signals, smell, and taste,” there must be something that it is like for them to do so (i.e. they must do so consciously). But this just entirely begs the question as to whether any of these things can occur unconsciously. Philosophers have long debated whether unconscious mental qualities exist, and if the authors contend they do not, one would expect an argument for their position.

They also claim that the “subjectivity of consciousness is already inextricably rooted in the personal life of the animal,” and that the redness of red is alive “in the same way that a cell is alive, or a heart is alive, or a person is alive.” It is difficult to understand what they mean or how this explains the subjectivity of qualia and the authors do not say much more than this about the issue.

To try to explain why consciousness seems so mysterious, they invoke their notion of “auto-ontological irreducibility,” which is the idea that “one’s subjective consciousness never refers to the objective neurons that create it, meaning that consciousness cannot experience how its mental events are physically produced.” There is also, they write, allo-ontological irreducibility (other people can see your brain but not your thoughts and experiences). The idea seems to be that since

the brain doesn't represent the neural source of its conscious experience, it should be no surprise that consciousness is subjective and so knowable only from one's subjective point of view. But these notions don't explain how the brain produces states that have these properties. So the notion of "auto-ontological irreducibility" just labels the problem and calls it solved.

In addition, it is not clear at all how this helps us with the traditional explanatory gap. Even if we never consciously experience our own neural states, why would that prohibit us from understanding how a particular conscious experience is related to the brain's functioning?

As to causation, they say that "conscious mental causation certainly fits this mold of an individual body acting on the environment: it is obvious I cannot move your arm with my thoughts; I can only move my own arm." But this does not address the question of how consciousness itself produces behavior, especially if one endorses Searle's claim that consciousness is not reducible to neural functioning.

Consciousness Demystified is like this all the way through. It is sloppily argued, makes grandiose claims without substantiation, and is shrouded in unnecessary and unhelpful jargon. One thing the authors definitely inherited from Searle was his inability to appreciate the philosophical and scientific issues that make consciousness such a difficult thing to understand. I applaud scientists and philosophers working together but this book is a classic example of what can happen when that goes wrong.

Bio

Richard Brown, Ph.D., is a professor in the philosophy program and an adjunct professor in the psychology program at LaGuardia Community College. He earned his Ph.D. in philosophy with a concentration in cognitive science from the CUNY Graduate Center in 2008. His work is focused on the philosophy of mind, consciousness studies, and the foundations of cognitive science.