

# ‘The Consciousness Instinct’ Review: How Our Minds Are Made Up

Mind or matter? Body or spirit? This could be the clearest and most compelling attempt to demystify the mind yet written. Julian Baggini reviews “The Consciousness Instinct” by Michael S. Gazzaniga.



Psychologist Michael S. Gazzaniga. PHOTO: RICK FRIEDMAN/CORBIS VIA GETTY IMAGES

*By*

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When someone writes that they want to “examine how matter makes minds” and “present a new view of how to conceptualize consciousness,” you would be justified in raising a skeptical eyebrow, even when that person is the distinguished psychologist Michael Gazzaniga.

Mr. Gazzaniga is famous for, among other things, his studies of patients who had the connections between their cerebral hemispheres severed. He and Roger Sperry showed that it is possible for one human being to house two consciousnesses, with each hemisphere aware of things the other is not.

Mind-boggling though these findings are, they would seem to leave unanswered the deep question of how neural activity gives rise to conscious experience in the first place. Philosopher David Chalmers famously called this the “hard problem.” Many have argued that “intractable” would be more accurate.

Mr. Gazzaniga does a better job of tackling the problem than innumerable philosophers and neuroscientists before him. As in his previous books on selfhood and free will, “Human” (2008) and “Who’s in Charge?” (2011), the author displays a rare ability to combine breadth and depth of scientific learning with good, grounded philosophical judgment. As a result, “The Consciousness Instinct” could be the clearest and most compelling attempt to demystify the mind yet written.

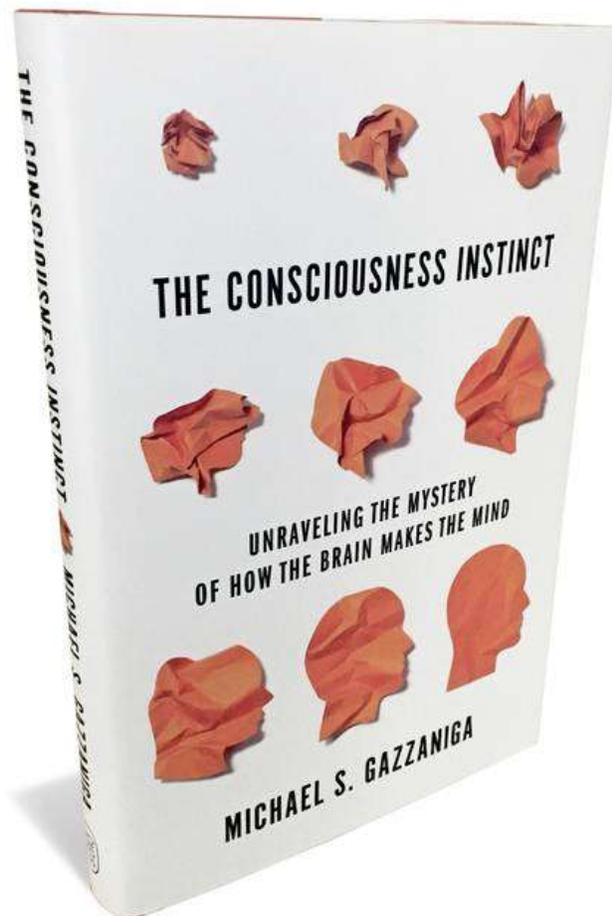
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THE CONSCIOUSNESS INSTINCT

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By Michael S. Gazzaniga  
*Farrar, Straus & Giroux, 274 pages, \$28*



Mr. Gazzaniga’s approach echoes those of the American pragmatists of the late 19th and early 20th centuries, who believed that most philosophical problems needed not solving but dissolving. “Intellectual progress usually occurs through sheer abandonment of questions together with both of the alternatives they assume,” wrote John Dewey. Mr. Gazzaniga is not the first to suggest that the consciousness debate is hampered by just such a set of false alternatives: matter or mind, body or spirit. The dualist assumption that these are two mutually exclusive categories inevitably makes their reconciliation impossible, leading otherwise brilliant thinkers since Plato to abandon “their fierce reasoning skills and, deus ex machina,” throw in “a spook at the end of their analysis.”

To escape the dualist trap, Mr. Gazzaniga takes as his unlikely inspiration Aristotle's ancient distinction between four different kinds of causes. This review, for example, has a material cause (paper and ink), a formal cause (the shape of the letters on the page), an efficient cause (me writing it) and a final cause (to inform people about the book). Whether or not this taxonomy is entirely correct, it illustrates how "no one mode of explanation" suffices to understand anything, because the causal categories do not entail each other."

Mr. Gazzaniga updates this basic insight with the quantum-physical concept of complementarity, that "a single thing can have two kinds of description and reality." We can think of matter as waves or particles, but not both at the same time. Similarly, the micro world of quantum physics follows different laws than the macro world of classical physics. "They inhabit different layers of description," Mr. Gazzaniga writes, "and one is not reducible to the other."

The author's point can also be made by thinking about the relationship between fundamental physics and biology. Both are hard sciences, but you simply cannot do the work of one with the other. Everything is made up of matter, but at different layers of organization different ways are needed to understand and describe it. This simple point cuts to the essence of Mr. Gazzaniga's dissolution of the puzzle of consciousness. Once we accept that humans contain layers of physical organization, none of which can be wholly reduced to another, it is no longer puzzling that what goes on in the brain can have an objective, physical description and a subjective, mental one.

Crucially, Mr. Gazzaniga also argues that it is wrong to attribute causal potency to only one layer—for instance, to suggest that neuronal firings can cause actions but decisions cannot. Heretical though this is to hard-nosed reductionists, Mr. Gazzaniga agrees with his mentor, Sperry, that "consciousness may have real operational value, that it is more than merely an overtone, a by-product, epiphenomenon, or a metaphysical parallel of the objective process."

Mr. Gazzaniga is very good at looking under the hood of consciousness to explain how its workings naturally follow from the ways in which the brain is organized. It is a hugely complex system with a layered, modular architecture, which enables it to "efficiently process multiple types of information concurrently." Neuropathology provides the clearest evidence for this. When people lose areas of brain function, not only do they often not notice but they carry on functioning remarkably well. If the brain were a more

unified “enchanted loom,” Mr. Gazzaniga argues that “removing portions of the brain or stimulating erroneous processing in some circuits would either shut down the system entirely, or cause dysfunction across all cognitive realms.”

Consciousness is not therefore a property of a central, single executive controller. What we perceive as consciousness is simply whichever module is most active, meaning that “its processing becomes the life experience, the ‘state’ of the individual at a particular moment in time.”

Mr. Gazzaniga might be mistaken to nail his flag so firmly to the mast of the physicist-cum-theoretical biologist Howard Pattee. And he is almost certainly wrong in some details. But on all the main points, his instincts on consciousness are sound. Awareness is not the “special sauce” that brings dumb biological processes to subjective life but an emergent property of immensely complex neurological processes. This does not so much eliminate the mystery of consciousness as make it no more or less mysterious than the ultimately inexplicable existence of the universe itself.

*Mr. Baggini is the author of “A Short History of Truth” and “The Edge of Reason.”  
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