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SCIENCE

Science of Consciousness Conference Is Carnival of the Mind

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At the Science of Consciousness conference last month in Tucson, I was faced with a quandary: Which of eight simultaneous sessions should I attend?

In one room, scientists and philosophers were discussing the physiology of brain cells and how they might generate the thinking mind. In another, the subject was free will — real or an illusion?

Next door was a session on panpsychism, the controversial (to say the least) idea that everything — animal, vegetable and mineral — is imbued at its subatomic roots with mindlike qualities. Running on parallel tracks were sessions titled “Phenomenal Consciousness,” the “Neural Correlates of Consciousness” and the “Extended Mind.”

For much of the 20th century, the science of consciousness was widely dismissed as an impenetrable mystery, a morass of a problem that could be safely pursued only by older professors as they thought deep thoughts in their endowed chairs. Beginning in the 1990s, the field slowly became more respectable.

There is, after all, a gaping hole in science. The human mind has plumbed the universe, concluding that it is precisely 13.8 billion years old. With particle accelerators like the Large Hadron Collider at CERN, scientists have discovered the vanishingly tiny particles, like the Higgs boson, that underpin reality.

But there is no scientific explanation for consciousness — without which none of these discoveries could have been made.

Faced with this vacuum, hundreds of people gathered in Tucson where wild speculations and carnivalesque pseudoscience were juxtaposed with sober sessions like “Agency and Mental Causation” and data-filled talks about probing conscious brain states with PET scans and EEGs.

Because I couldn't clone my brain, I found myself sitting, late one afternoon, in “Vibrations, Scale, and Topology,” where a musician from Tulsa, Okla., who called himself Timbre Wolf, was strumming a guitar and singing the “Bing” song.

“Bing” is a word that Stuart Hameroff, the University of Arizona professor who organizes these mindfests, uses to describe the moment when the spark of consciousness lights up the brain. Imagine a mad scientist hooking together neurons one by one until suddenly they reach a threshold of complexity and — bing — consciousness emerges.

We all know the feeling, one that science has been powerless to explain. The audience seemed familiar enough with the words, and so they sang along in 4/4 time.

Before launching into the tune, Timbre Wolf played a recording of an eerie composition called “Brain Dance,” derived from vibrations generated by tiny molecular structures called microtubules, which are part of the scaffolding of brain cells. The music, to his ear, was reminiscent of Philip Glass, Steve Reich, Cuban rumba, Gustav Holst's “The Planets,” and the visual rhythms of strange mathematical objects called Penrose tiles.

All of this, he suspected, had something to do with quantum mechanics and consciousness, an idea that Dr. Hameroff has long been pursuing.

There even seemed to be undertones of the Devil's Triad, a discordant combo of notes known since medieval times that forms the opening riff of "Purple Haze."

That all made for good metaphysical fun. More disconcerting was the starring role given to the New Age entrepreneur Deepak Chopra. Dr. Chopra believes that human consciousness (through epigenetic feedback) directs the unfolding of human evolution.

No one seemed to object as Dr. Chopra, whose Chopra Foundation was one of the sponsors, shared the stage with prominent professors who engaged with his ideas as if he were another esteemed colleague.

But that's how it is at Tucson. There were talks on psychic phenomena and retrocausality, the hypothesis that the future can affect the past through quantum emanations. Presentations that didn't make it into prime time were laid out in colorful posters attached to rows of bulletin boards: "What Might Cause a Star's Consciousness?" "The X-Structure: The Basic Nature of Life and Existence."

Also included in the lineup were presentations hypothesizing that dark energy could explain consciousness and that homeopathic medicine might work through nanoparticles and quantum entanglement — as if homeopathy worked at all.

Beyond all of that, there was still plenty of serious theorizing. For a rapid-fire summary, you can hear Baba Brinkman, a rap artist who provided a daily report on the meeting, which he called "half science lab and half Burning Man."

Late one night at an event called Club Consciousness, Mr. Brinkman joined Dorian Electra and the Electrodes as the band regaled the crowd with songs like "Mind-Body Problem" (a reference to the age-old question of how something as seemingly ethereal as consciousness emerges from the brain) and "Brain in a Vat" (the idea that for all you know, you're just a brain kept alive in a laboratory flask and what seems like reality is an illusion).

"Chinese Room" was about a thought experiment that the philosopher John Searle claims to be a refutation of the possibility of artificial intelligence. But the big hit of the night, "Sensual," which has been made into a rock video, was about a

famous intellectual conflict that has raged since the 17th century when John Locke went to the mat with René Descartes over the source and nature of human knowledge.

For Locke and the empiricists, the mind begins as a blank slate (a tabula rasa) and truth comes to us through our senses. But Descartes and the rationalists insisted that some knowledge was innate, prefigured into the mind of every newborn child.

Ms. Electra opened the debate.

*There ain't nothin in the mind which ain't been in the sensations
Let me take you on a sensation vacation
Through sense experience, the mind is created
As well as rules to process raw sense data.*

Siding with Descartes, Mr. Brinkman offered the rebuttal.

*Hey, rationalism is on top
'Cause lately empiricism has gone pop.
There ain't no tabula rasa, John Locke,
Better check your senses against logic nonstop.*

Ultimately they concluded, as many philosophers have, that the truth lies somewhere in between.

In the past, these conferences were called “Toward a Science of Consciousness.” Recently, the organizers dropped the first two words of the title, as if the fog was finally lifting. But as I left the auditorium, I wondered if their confidence was premature.

In even the wildest presentations, one could sense a longing for an answer to the question of consciousness, a fuller accounting of what we are and how we fit into the cosmic machinery. For all of the effort, the goal of providing a compelling explanation — one so clear it would make your head go bing — seemed as remote as ever.

Correction: May 18, 2016

The Raw Data column on Tuesday, about the Science of Consciousness conference in Tucson, misstated the surname of the composer of “The Planets.” He is Gustav Holst, not Holt.

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