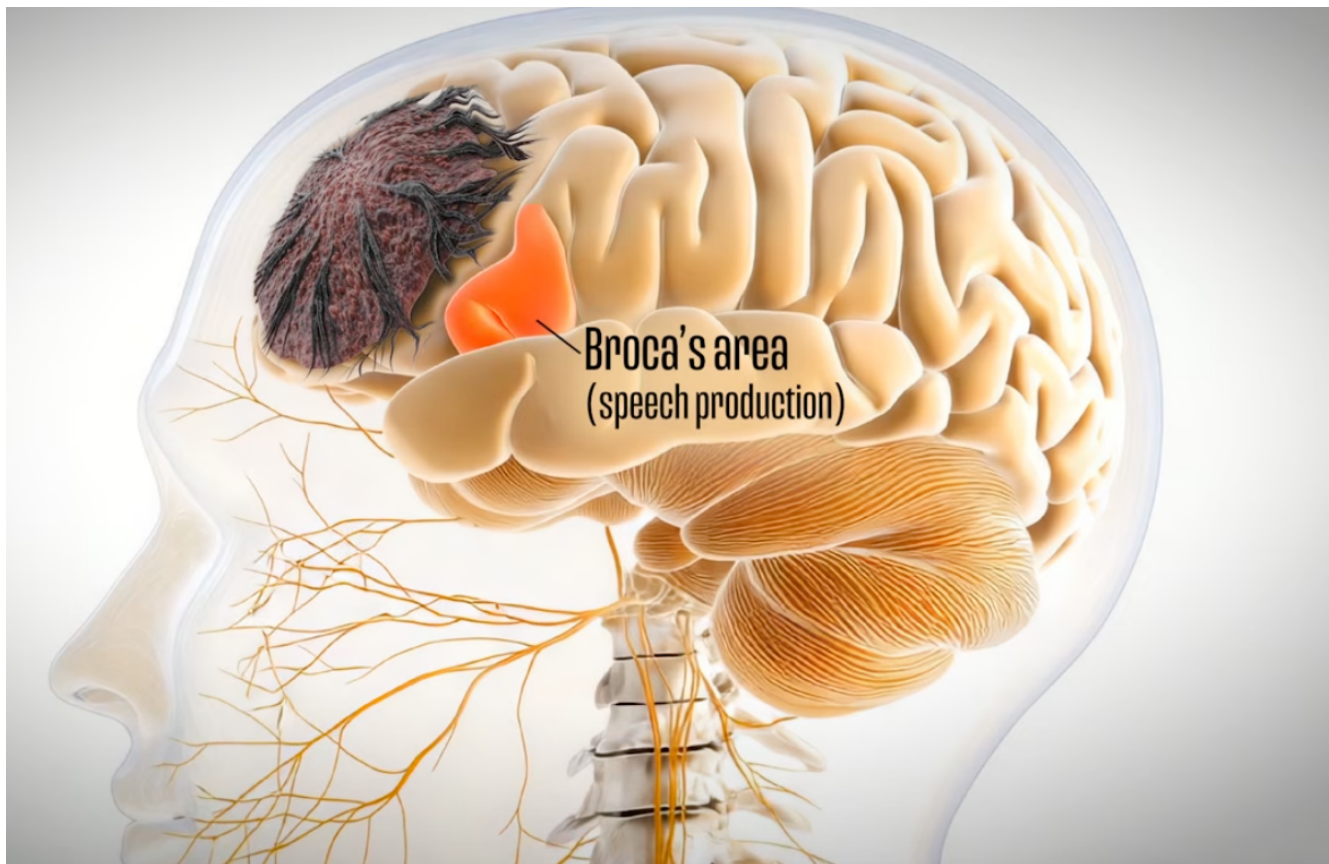


Can the Mind Be Explained by the Body?

Episode 5 with Dr. Michael Egnor

<https://www.discovery.org/v/can-the-mind-be-explained-by-the-brain/>
www.SecretsoftheHumanBody.com

DATE	DURATION	TOPIC
September 23, 2026	12 minutes 15 seconds	Mind–brain relationship



Summary

The episode presents neurosurgeon Michael Egnor's argument that the human mind cannot be fully reduced to the physical brain. Drawing on decades of surgical experience, unusual clinical cases, Wilder Penfield's brain-stimulation research, and split-brain studies, Egnor distinguishes between mental activities that appear closely tied to brain function—such as movement, sensation, memory, and emotion—and higher capacities such as abstract reasoning, conceptual thought, and free will.

The transcript advances a dualist interpretation: the brain is involved in some aspects of mental life, but intellect and will are described as non-material powers of the mind or soul. The episode does not present a debate or survey competing explanations; it summarizes Egnor's clinical observations and the conclusions he draws from them.

1. The Surgical Experience That Raised the Question

Egnor begins with an awake-brain operation on a young woman whose tumor was located near the speech area of her left frontal lobe. During the procedure, he electrically mapped the brain while speaking with her so that he could protect language function. Although he removed the tumor and a substantial portion of the frontal lobe, she continued an ordinary conversation and showed no obvious change in speech or behaviour.

For Egnor, this experience challenged the computer analogy of the brain. A computer would not normally continue functioning unchanged after removal of part of its hardware. The operation therefore prompted his central question: what is the actual relationship between the mind and the brain?

2. Patients with Major Brain Abnormalities

Egnor describes several patients whose mental abilities or consciousness appeared unexpectedly strong despite extensive absence or damage of brain tissue:

- **Maggie:** Missing much of her cerebellum, yet described as intellectually gifted, musically accomplished, and neurologically normal.
- **Joshua:** Born missing at least half of his brain, yet graduated from high school, enjoyed sports, and led a full life.
- **Cindy:** Born missing about two-thirds of her brain, yet described as bright, normal in everyday interaction, and outwardly unaffected.
- **Nicholas:** Born with hydranencephaly and without the cerebral hemispheres; although physically disabled, he remained awake, conscious, expressive, and capable of laughter and crying.

Egnor presents these cases as difficult to reconcile with a simple one-to-one view in which the amount of functioning brain tissue directly determines the presence or quality of mind. He argues that they invite a broader account of consciousness than strict materialism provides.

3. Wilder Penfield and the Limits of Brain Stimulation

The episode then turns to Wilder Penfield, the pioneering neurosurgeon who mapped brain function by electrically stimulating the exposed cortex of awake patients. According to Egnor's summary, Penfield could evoke four broad classes of response:

- Movement
- Sensation
- Memory
- Emotion

By contrast, stimulation did not produce abstract ideas, logical reasoning, arithmetic truths, or concepts such as love and mercy. Egnor interprets this difference as evidence that the brain is the organ of some mental functions but not of intellect and will.

Key Distinction in the Episode

Functions associated with brain activity	Functions Egnor argues are not reducible to the brain
Movement, sensation, memory, emotion, perception	Abstract thought, reasoning, conceptual understanding, intellect, free will

4. Split-Brain Surgery and Unified Consciousness

Egnor recounts treating a patient named Sam whose severe epilepsy spread between the cerebral hemispheres through the corpus callosum. Surgeons performed a corpus callosotomy, cutting the main bridge between the hemispheres to reduce the spread of seizures.

After such surgery, information presented in one side of the visual field is processed by one hemisphere and cannot be shared normally with the other. Perception may therefore be divided. Egnor emphasizes, however, that the patient’s sense of personal identity and unified consciousness generally remains intact.

Conceptual Matching Across Hemispheres

The transcript describes experiments in which one hemisphere is shown one image and the other hemisphere is shown several possible matches. Split-brain patients can still identify a conceptual relationship—for example, recognizing that a painter’s palette and a violin both belong to the category of art—even though no single hemisphere has received both images.

Egnor interprets this ability as evidence that conceptual thought is not confined to either separated hemisphere. In his account, an undivided aspect of mind remains capable of comparing and understanding information that the divided brain cannot physically integrate in the ordinary way.

5. From Materialism to Dualism

The narrator explains that Egnor formerly held a strictly materialist view, according to which all mental activity arises entirely from neurons and brain processes. His surgical experience and interpretation of neuroscientific evidence led him instead toward dualism.

In the episode, dualism means that the mind has both material and non-material aspects. The material brain supports bodily and experiential functions, while the non-material dimension is associated with intellect, abstract concepts, reasoning, and will. Egnor refers to this dimension as an immaterial power of the soul.

He places his position in a historical line with neuroscientists Wilder Penfield, Charles Sherrington, and John Eccles, all of whom he identifies as dualists.

Conclusion

The episode’s central claim is not that the brain is unimportant, but that it does not completely explain the mind. Egnor accepts a strong connection between brain processes and movement, sensation, memory, emotion, and perception. He argues, however, that consciousness, personal unity, abstract thought, reason, and free will point beyond a purely material account.

The episode ends by previewing a further discussion of what may happen to the mind when brain function ceases.

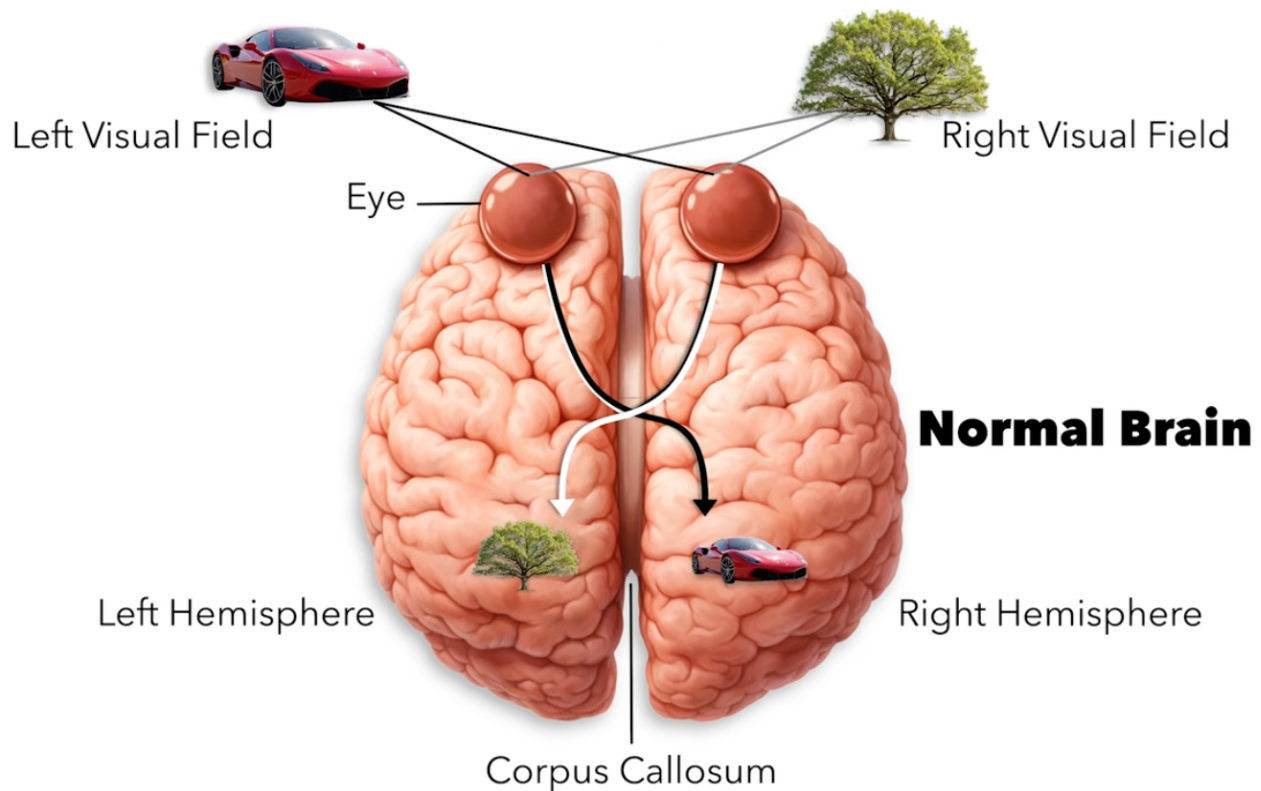
Episode at a Glance

Central question	Can the human mind be fully explained as the activity of the physical brain?
Evidence emphasized	Awake surgery, patients with incomplete brains, Penfield’s stimulation studies, and split-brain research.
Main distinction	Brain-linked functions versus intellect and will.

Complete Transcript

SUMMARY KEYWORDS

mind, brain, neurosurgery, consciousness, neurons, surgery, tumor, cerebellum, epilepsy, dualism, intellect, soul, reasoning, memory, perception



SPEAKERS

Speaker 2, Speaker 1

Speaker 1 00:05

I've done more than 7,000 brain operations over about 40 years. One operation really got me to thinking in ways that I hadn't thought of so much before. I had a young woman who had a brain tumor in her left frontal lobe, and it was very close to her speech area. The operative approach we use for that is called awake brain surgery, where we map the surface of the brain. We gave her local anesthesia, so she felt no pain. We exposed the brain, and using electrical stimulation, we determine where the speech area is in relation to the brain tumor, so we can take the brain tumor out safely and protect the speech area. And to know where the speech area is, I had to have a conversation with her as I was taking out the tumor and a part of her left frontal lobe. So we had a very pleasant conversation for a number of hours, talking about her family, talking about the weather, about the food in the cafeteria, just ordinary chatting. And I'm taking out a substantial part of her frontal lobe, and she never turned a hair. She showed no sign whatsoever of any kind of brain injury or brain damage. And when I finished the surgery, I thought that wasn't in any of my textbooks. When I was a medical student, when I was training in neurosurgery as a neurosurgical resident, they thought the brain was like a computer. You can't go into your computer and take out a part of the hard drive and expect the

computer to work perfectly fine. And so her brain wasn't like a computer. That's not the way it worked. And I got to thinking: Well, then, what is the relationship between the mind and the brain?

Speaker 2 01:53

Can we say with certainty that the human mind is only the result of activated neurons? Can science explain where consciousness emerges from? Can we fully understand the mind by studying only material causes? Dr. Michael Egnor has had over 40 years of clinical practice with 10s of 1000s of patients. As a renowned neurosurgeon, he was named one of New York's best doctors by New York Magazine. And in this episode, we'll see some of the astonishing surgical experiences that have caused Dr. Egnor to challenge the prevailing science on the mind-brain relationship.

Speaker 1 02:46

When I began my neurosurgical practice, I noticed that I had quite a few patients who had rather incomplete brains, but very good minds. For example, Maggie is a young lady who is missing much of her cerebellum, which is the back part of her brain? This is a normal scan by comparison, but that hasn't had any effect on her life and on her mind. Maggie is now a young woman in her late 20s. She is brilliant. She was a gifted student in school, and she's an excellent musician and completely normal neurologically. This is Joshua, who was born missing at least half of his brain. This dark area is just fluid that's replaced his brain tissue. Joshua has done beautifully. He just graduated from high school, and he is a neurologically normal young man who loves sports and leads a full life. This is Cindy. She's a young lady who's in her mid 20s now. She was born missing about two thirds of her brain, and Cindy has done beautifully despite the fact that most of her brain is missing. She is a normal young lady. She's actually quite bright, and if you were to meet her, you couldn't tell that there is anything wrong with her brain at all. This is Nicholas. This is a little boy who has a condition called hydrancephaly, where the hemispheres of the brain are completely missing. This dark here is the spinal fluid that has completely replaced the hemispheres of the brain. The gray here is all that remains of his brain because he had strokes during intrauterine life, and Nicholas has cerebral palsy. He's rather disabled, but he's fully conscious. He's awake. He laughs. He cries. He has a lot of relatively normal behaviors, despite the fact that most of his brain is completely gone, including the cortex of his brain. And it's very difficult to explain how he could be conscious with so much of his brain missing, unless one takes a different perspective on how the brain relates to the mind.

Speaker 2 04:45

The function of most of our organs are pretty straightforward. Vision is produced in the eyes, hearing in the ears. But what about the human mind? Is it fully accounted for in the brain? It's a question that's been asked by scientists for nearly a century.

Speaker 1 05:04

The greatest neuroscientist, undoubtedly, was Wilder Penfield, who was a pioneering neurosurgeon in the mid-20th century. Much of what we know about the organization of the surface of the brain came from Penfield's work, and he mapped the surface of about 1,100 people's brains. He would stimulate the surface of the brain while they were awake, and this would show him where the critical parts of the brain were, like the parts that control movement, parts of the brain that control vision, so on. And to his amazement, he found that he could stimulate only four things: he can make people move, he can make people have sensations. He can make people have memories, and he can make people have emotions. But he didn't find any area that would produce abstract thought of any sort. No matter where he touched the brain, people never thought of the concept of love or the concept of mercy. He couldn't evoke simple arithmetic. One plus one is two. He couldn't evoke reasoning or logic or things like that. Those were all unmappable, meaning that he couldn't elicit them anywhere. And Penfield wrote a book called *Mystery of the Mind*, and the fundamental question that he asked is, does the

brain explain the mind Completely, and it's an interesting question. You could ask: Is the brain the organ of the mind? And the answer is yes and no. The brain is the organ of some aspects of the mind—movement, sensation, memory, and emotion—but it's not the organ of intellect and will. That is the capacity for reason and abstract thought, and the capacity for free will, don't come from the brain, and that's a scientific insight. That's an insight from neurosurgical experience, from Penfield's experience, from my experience, from many, many different research studies that have been done on the brain and the mind, and that led me.

Speaker 2 07:13

Prior to these discoveries, Dr. Egnor held a strictly materialistic point of view, meaning all activity of the mind comes entirely from the brain, but it was the years of surprising surgical experiences that moved him to consider the plausibility of non-material activity of the mind. One of the most powerful being the split-brain phenomenon.

Speaker 1 07:39

I had a patient named Sam a number of years ago, who had intractable epilepsy. He had seizures that were beginning in one hemisphere of the brain, but then they spread to the other hemisphere across something called the corpus callosum, and the seizures were really catastrophic for him, and we couldn't control them adequately with medication. So we did an operation called a corpus callosotomy, where we go in and we split the brain in half, essentially cut the entire corpus callosum, so that one hemisphere of the brain doesn't connect directly to the other hemisphere of the brain, and that stops the seizures, or at least makes them much much milder. So it really helps Sam a lot. The split brain surgery has been done 1000s of times, and it's still done. As neurosurgeons do it quite a bit, and normally because our hemispheres are connected, they can talk to one another constantly. For example, you have a person look straight ahead on the left-hand side of his visual field. What he sees there goes to his right hemisphere. The right visual field goes to the left hemisphere, and the information can be shared. But with split-brain surgery, we really had them separate. The ability to perceive things, visual fields, are definitely split, and there is a functional impediment to integrate information between the two hemispheres. And perhaps the most remarkable thing is what doesn't change, and that's the sense of unity of self—that you can split the brain in half, and a person is pretty much the same person he was. The patients themselves virtually never notice anything different, so it causes split perception, but leaves unified consciousness. And a number of researchers have studied split-brain patients. They are all finding pretty much the same thing. Alice Cronin's work particularly fascinates me. She's an MIT scientist who has studied these patients, and what she's done has been brilliant. She has a system where, to one hemisphere she'll present a picture, to the other hemisphere she'll present three pictures, and she'd say, "Well, the one picture, which of the three pictures conceptually matches it? Most people will pick the violin because the painter's palette and the violin are both forms of art. So you have to have this concept of art to match them, and people with split brains get it right. Almost always, just like people without split brains get it right. But keep in mind that there is no part of the split brain patient's brain that has seen both pictures. He couldn't integrate information between the two hemispheres. One hemisphere sees the artist palette; the other hemisphere sees the violin. No part of the brain sees both. So how can they compare them? How can they draw the conceptual correlation between the two? What that implies is that there's an aspect of the mind that's not in the brain. In a sense, there's a part of the mind that's watching that is not split when you split the corpus callosum, and the obvious reason for that would be it's not in the brain; it's not material. It's an immaterial power of the soul. And many other aspects of neuroscience point to this same immateriality, our ability to form concepts to think abstractly, and that's not in the brain, and a surgeon can't touch it with his knife. The

Speaker 2 11:02

perspective that there are both material and non-material aspects of the mind is often referred to as dualism.

Speaker 1 11:11

It's the perspective that many neuroscientists have arrived at. Wilder Penfield believed this. Charles Sherrington, really the father of modern neuroscience, was a dualist. John Eccles, who won the Nobel Prize, was also a dualist. Many neuroscientists have come to this conclusion. Although in the 21st century, being a dualist in neuroscience isn't fashionable, but it's right.

Speaker 2 11:41

In our next episode, we'll look at the mind-brain relationship through the eyes of the soul, as Dr. Egnor examines what happens to the mind when the brain ceases to function.