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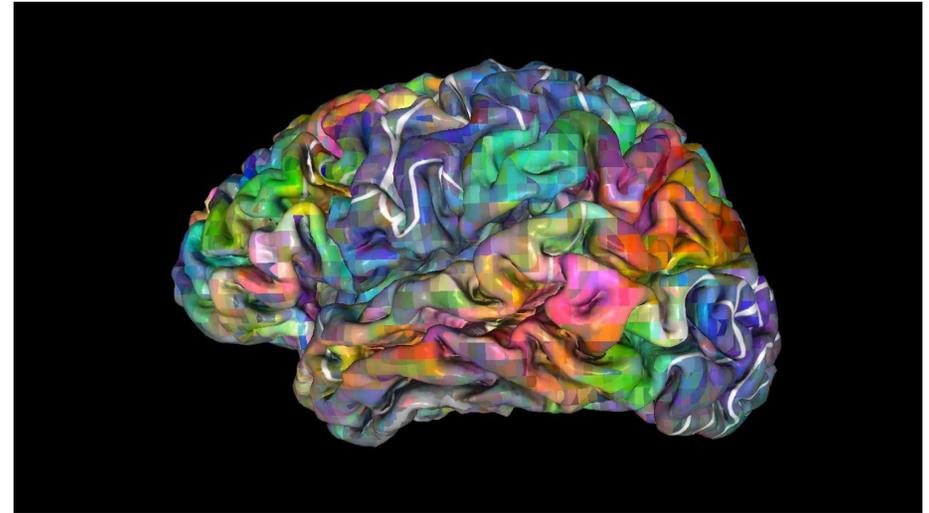
POCKET WORTHY

Scientists Say Your “Mind” Isn’t Confined to Your Brain, or Even Your Body

Exploring how the mind extends beyond the physical self.

Quartz | Olivia Goldhill

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The mind is more than just the brain. Photo from The Regents of the University of California.

You might wonder, at some point today, what’s going on in another person’s mind. You may compliment someone’s great mind, or say they are out of their mind. You may even try to expand or free your own mind.

But what *is* a mind? Defining the concept is a surprisingly slippery task. The mind is the seat of consciousness, the essence of your being. Without a mind, you cannot be considered meaningfully alive. So what exactly, and where precisely, is it?

Traditionally, scientists have tried to define the mind as the product of brain activity: The brain is the physical substance, and the mind is the conscious product of those firing neurons, according to the classic argument. But growing evidence shows that the mind goes far beyond the physical workings of your brain.

No doubt, the brain plays an incredibly important role. But our mind cannot be confined to what’s inside our skull, or even our body, according to a definition first

put forward by Dan Siegel, a professor of psychiatry at UCLA School of Medicine and the author of the 2016 book, *Mind: A Journey to the Heart of Being Human*.

He first came up with the definition more than two decades ago, at a meeting of 40 scientists across disciplines, including neuroscientists, physicists, sociologists, and anthropologists. The aim was to come to an understanding of the mind that would appeal to common ground and satisfy those wrestling with the question across these fields.

After much discussion, they decided that a key component of the mind is: “the emergent self-organizing process, both embodied and relational, that regulates energy and information flow within and among us.” It’s not catchy. But it is interesting, and with meaningful implications.

The most immediately shocking element of this definition is that our mind extends beyond our physical selves. In other words, our mind is not simply our perception of experiences, but those experiences themselves. Siegel argues that it’s impossible to completely disentangle our subjective view of the world from our interactions.

“I realized if someone asked me to define the shoreline but insisted, is it the water or the sand, I would have to say the shore is both sand and sea,” says Siegel. “You can’t limit our understanding of the coastline to insist it’s one or the other. I started thinking, maybe the mind is like the coastline—some inner and inter process. Mental life for an anthropologist or sociologist is profoundly social. Your thoughts, feelings, memories, attention, what you experience in this subjective world is part of mind.”

The definition has since been supported by research across the sciences, but much of the original idea came from mathematics. Siegel realized the mind meets the mathematical definition of a complex system in that it’s open (can influence things

outside itself), chaos capable (which simply means it’s roughly randomly

distributed), and non-linear (which means a small input leads to large and difficult to predict result).

In math, complex systems are self-organizing, and Siegel believes this idea is the foundation to mental health. Again borrowing from the mathematics, optimal self-organization is: flexible, adaptive, coherent, energized, and stable. This means that without optimal self-organization, you arrive at either chaos or rigidity—a notion that, Siegel says, fits the range of symptoms of mental health disorders.

Finally, self-organization demands linking together differentiated ideas or, essentially, integration. And Siegel says integration—whether that’s within the brain or within society—is the foundation of a healthy mind.

Siegel says he wrote his book now because he sees so much misery in society, and he believes this is partly shaped by how we perceive our own minds. He talks of doing research in Namibia, where people he spoke to attributed their happiness to a sense of belonging.

When Siegel was asked in return whether he belonged in America, his answer was less upbeat: “I thought how isolated we all are and how disconnected we feel,” he says. “In our modern society we have this belief that mind is brain activity and this means the self, which comes from the mind, is separate and we don’t really belong. But we’re all part of each others’ lives. The mind is not just brain activity. When we realize it’s this relational process, there’s this huge shift in this sense of belonging.”

In other words, even perceiving our mind as simply a product of our brain, rather than relations, can make us feel more isolated. And to appreciate the benefits of interrelations, you simply have to open your mind. ♡