

# The Brain Frequency Course

A free, online, video mini-course on brainwaves and the foundations of awareness.

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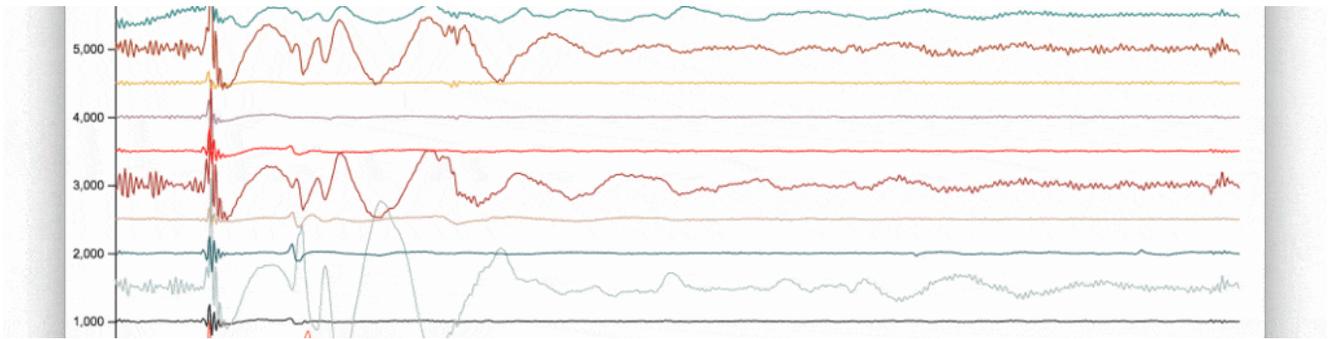
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“Attention is the sentry at the gate of consciousness.” — **Adam Zeeman**



## Sea Urchins

Sea urchins are a class of simple marine animals that comprise 950 species and inhabit all oceans at all depths. They have much in common with vertebrates: they move, see, breath, and sexually reproduce. They forage for food, behave socially, and execute various strategies to avoid predators. But they don't have a brain; they don't even have a central nervous system. Remember the sea urchin when you ponder the role of the brain and the meaning of consciousness.



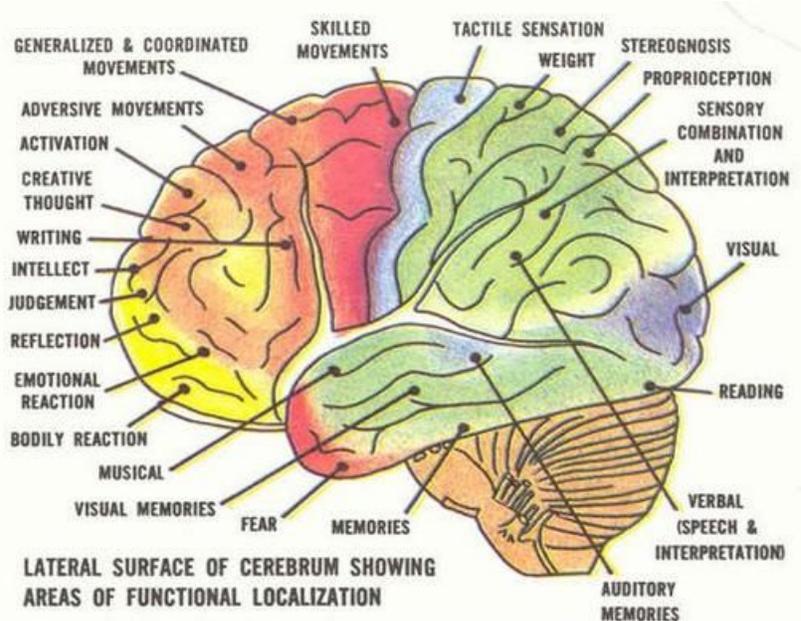
## What

The mechanisms of the brain are not understood; not human brains nor the brains of any animals, as far as I can tell. What we know comprises a handful of pieces of a jigsaw puzzle whose pieces number in the tens of thousands. It's not even clear in what dimension this puzzle is assembled. It's quite likely that the brain does not function as a connection of parts localized in three dimensions. The electrical coordination of the brain is virtually unexplored.

Until the last decade we didn't even know the number of cells in our brain, as the count of glial cells was off by a factor of 10. But this is deceptive because we don't know what the glial cells do, even though they comprise half of the cells in the brain. But then, we hardly know all that the neurons do either. Until recently, we had not a clue as to how the brain nourished itself.

The standard model of the brain's function assumes that it operates like a computer with synapses playing the role of gates and information being stored in cells. This model persists because we have no other, and we have no other because we don't know how neurons act or interact, and we don't know what goes on inside them. It's unlikely that this model is even remotely correct.

All the detailed brain science you see is an elaboration in ever finer detail of little basic understanding. We are brain physiologists and taxonomists. We can see physical structures and gross chemical changes. We can follow sensory information in and out of the central nervous system, but we don't know what happens inside the brain or inside cells.



## Where

We can see a number of gross properties of brain physiology. We follow chemical pathways, and we examine deep brain functions in living animals, but we understand little of how the brain works to support awareness. We don't understand consciousness.

On the other hand, we can see correlations between consciousness and brainwaves, which arise from the brain's large-scale function and the charging and discharging of groups of cells. We don't understand how these collective phenomena are organized—the underlying language if you will—but we're starting to find correlations with consciousness.

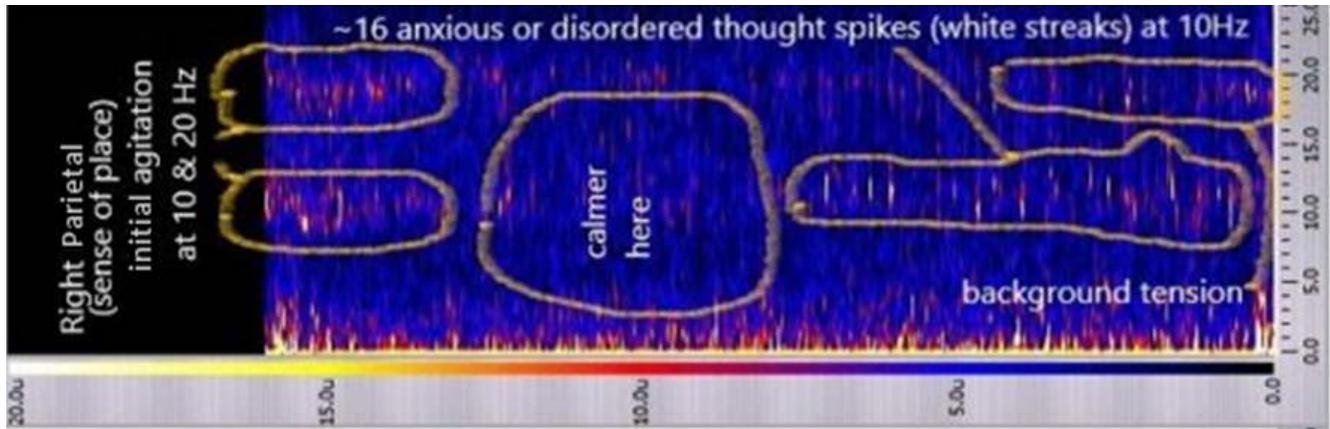
The more generally you understand consciousness, the more you become aware of its presence and absence in the behavior of people and other animals. Just as the brain's cellular structure conspires to support consciousness, other parts of the brain collaborate to support higher levels of awareness.

It becomes obvious that consciousness is itself a structure built of structures. At each level new mechanisms are involved. It is unlikely that consciousness happens at a cellular level, or that it can be reduced to an information logic based on separate cells.

Cells organize into structures that handle aspects of brain function. These are not the aspects we see at a cognitive level, rather, they're collaborative functions that underlie cognition such as attention, focus, pattern recognition, and sense interpretation.

It has yet to be determined where our mental functions take place. Our organs seem to carry aspects of our personality, as organ transplant patients have shown. Our enteric nervous system is 10% of the size of our brain, and it's here that our lymphatic system "learns" to fight infection. This learning is not done in the brain and the knowledge is not stored in the brain.

A pianist's fingers can move faster than signals to the brain. [Watch Keith Jarrett](#) improvise a complex piano piece while in a trance with his eyes closed. He said he never thinks about these pieces beforehand. What sort of consciousness is this? The totality of our consciousness relies on aspects of our cerebral function that we hardly understand.



## Why

I'm a physicist, neurophysiologist, neurofeedback therapist, and hypnotherapist. For 10 years I wrote brainwave training protocols to change my clients' awareness. Now, as a hypnotherapist, I watch my clients' brainwaves as they move in and out of trance. Because I embrace many disciplines, I see things others don't.

Almost no one is incorporating this information in the specialties of hypnosis, neurofeedback, medicine, neurology, or psychology. For the most part, these disciplines are arranged like a Tower of Babel: psychologists don't know neuroscience, engineers don't know hypnosis, therapists don't know brainwaves, and so on. Each discipline has its own protocols, language, textbooks, and goals.

This is why we're seeing new disciplines being born between the cracks. Mindfulness is filling in between awareness and psychology. Psychedelics are exploring subjective consciousness. Medical hypnosis is exploring mind-body control.

Everyone should understand brainwaves because attention is critical to all of our brain functions. What I can teach you about brainwaves is something you can use without therapy or formal training. You can incorporate an understanding of your brainwaves into your meditation, mindfulness, yoga, dreamwork, learning, or psychedelic practice.



## How

Brainwaves are not directly connected with consciousness, they're connected with awareness. Learning about brainwaves teaches you that there are different kinds of awareness. More specifically, it teaches you that awareness is rhythmic, and it can teach you to see these rhythms in your actions and your thinking.

There is a whole dimension of awareness that is being ignored. It sits right in front of us but we don't see it because "it" is how we see. To "see" awareness is to see yourself seeing. It sounds impossible, but it's actually quite evident. Just as you can look at your hand, you can look at the awareness generated by your hand, or your neck, back, or ankles. You can start to perceive these as frequencies and you can begin to understand that awareness is and must be rhythmic.

Once you start to notice rhythmic patterns in your perception, you start to see them everywhere. Your whole existence becomes a weaving, moving into and out of states of higher and lower awareness. These states are not good or bad, they're different. You process information differently and you act and react differently to information when you're in different frequency states.

You employ various levels of perception at all times, and it is for this reason that you naturally cycle through different frequencies of attention. This is what correlates with brainwaves, and if you become more aware of your brainwaves, you can become aware of your attention fluctuating. You can learn to control this and, as you do, you start to become aware that your emotional states follow these rhythms too.

# A Free, Online Course on Brainwaves

I'm offering a free, online, video-based, mini-course on brainwaves. It consists of seven 10-minute videos interspersed with text and sprinkled with links to my related blog posts. You can access the course page by subscribing to my blog. You'll then be sent an email to confirm your intentions and, once you do, you'll be given the URL to the brainwave course.

To subscribe to the blog, from which you can cancel at any time, and to get the link to the free brainwave course, go to this URL:

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Watch my short video introduction here:



<https://vimeo.com/476491709>

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