

What is neurobiology?

What is neurobiology and how can it be described? It's a very broad field, says Dr. Micevych. *"It's the biology of nerve cells and glial cells that make up the brain — how they fit together and make circuits, and how those circuits process information and regulate behavior, endocrine function, emotions, breathing, etc."*

- I can't feel my face – Nicole Kidman talked about Botox. Our facial expressions are hardwired into our emotions: we can't have one without the other. It dampens our connection to those around us because we feel empathy by mimicking each other's facial expressions. Think about when we laugh or see someone yawn.
- The power of body language – Spend 2 minutes in a power pose. We talked about the posture of Wonder Woman! Hands on hips, elbows cocked wide, legs firmly planted. When we do this there is a change both psychology and physiology. The point is there is a link between our minds and bodies.

This chapter is about - shifting states of being - knowing that the body can drive the mind gives us a whole new set of knobs and levers with which to play.

Another example is yoga – it has an effect on how you project yourself and how you feel.

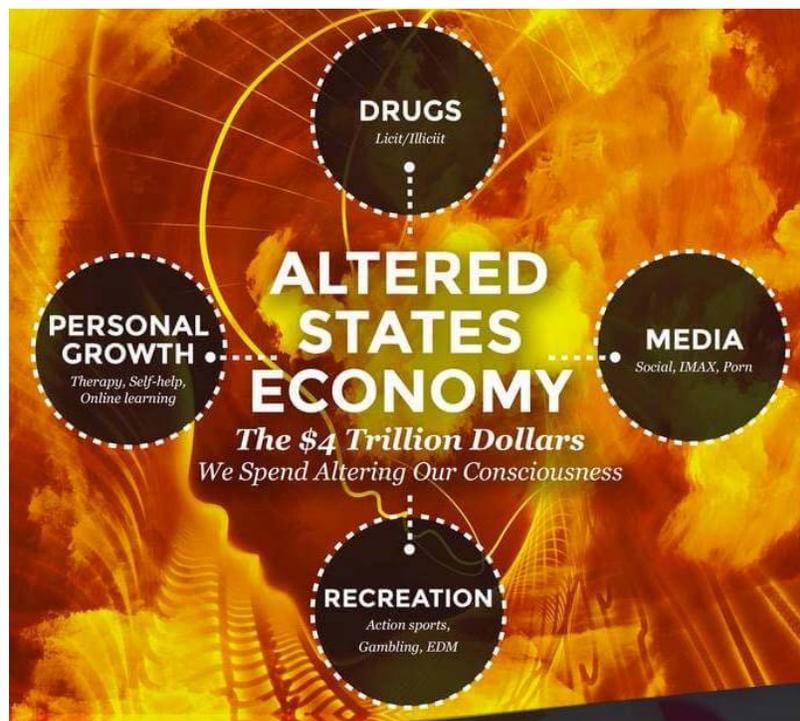
- AI Shrink – the neurobiology of emotion shows that our nonverbal cues – our tics, twitches, and tone reveal much more about our inner experience than words typically do.
- The birth of Neurotheology – studying the nature of reality and the differences between the world that we perceive and the world as it really is. Science is reconsidering mystical experiences – an experience known as Unity, the feeling of being one with everything.

Refers to Navy SEALs' new training facility, The Mind Gym, is an organization trying to accelerate learning by getting individuals into peak physiological and neurological states. The Mind Gym is equipped with technology like sensory deprivation tanks, advanced cardiac monitoring, and biofeedback systems, which are used together to guide SEALs into optimal states. In doing so, SEALs can reportedly learn a foreign language in just six weeks, compared to six months.

But it's not just elite military units after flow. We all are—even if we don't call it that.

- When Kotler and Wheal calculated the size of what they call the “altered states economy,” they found people are spending a whopping **four trillion dollars** every year to alter their consciousness.

“It's a quarter of [America's] annual GDP,” says Wheal, “That's a pile of money that we are spending consciously, unconsciously, destructively, productively just trying to get out of our heads.”



Wheal explains, “Most of us are tired, wired, stressed, and constantly reflexive.” But in an altered state, something very different happens to our minds. Our inner critic finally shuts up, and we get relief from our constant mental chatter. The scientific term for this experience is “**transient hypofrontality**,” which is when the brain’s **prefrontal cortex**—the part that controls executive functioning—slows down.

Because of this, altered states don't just help push physical and mental boundaries, they provide a temporary mental off switch, which many of us desperately need.

Wheal says, "One in four Americans are on psychiatric medicines, and suicide is up for every population ranging from age 7 to 78. There was just a study last week that said that diseases of despair (like depression and anxiety) are the number one killer of middle-class white Americans...Our inability to change the channel, it's literally killing us."

Even if only momentary, an altered state experience is so unique and freeing that once people get a taste of it, they'll often go to great lengths to have another.

But could this ecstatic pursuit become addicting or self-serving?

Wheal says it could, but it certainly doesn't have to. In fact, there's a bigger message that Wheal wants readers to take away: "Don't die wondering."

At the end of our interview, Wheal said, "If you have questions of whether there's capital "M" more in life—go find it. It's there, and it's there through a dozen different doors."

Whether altered states help companies increase productivity, entrepreneurs reach a breakthrough idea, or artists tap into their creative genius, they leave us feeling like we got a glimpse of something greater.

If I can change the "wallpaper of my mind" by deliberately shifting my neurophysiology—my breathing, my posture, my brainwaves, or any number of other interventions—what good are all those stories I've been telling myself? If I am not my thoughts, then who am I, really?

Instead, we can stay above our storytelling mind and simply monitor the knobs and levers of our neurobiology. And while this may seem far-fetched, top performers are already there. Tibetan monks can shut off their default mode network (or inner mind chatter) almost at will, SEAL snipers tune their brainwaves to the alpha frequency before locking on to targets, extreme athletes smooth out their heart rhythms right before dropping into a mountain or wave. They're deliberately doing an end run around their conscious minds. They're accessing more efficient and effective ways of being, and they're doing this exactly backward from how most of us have been taught.

As esoteric as it sounds, is that not what life's really all about?

We can train our brains to find our minds.

The 21st century brain's *normal* state "has a neurological signature," Steven says. "It's hyperactivity in the prefrontal cortex, which is the front of your brain behind your forehead that governs most of your higher cognitive functions, executive functions, critical thinking — that sort of thing. We see brainwaves in the beta range, which is where our brainwaves are right now. It's a very fast-moving wave and we see a steady drip, drip of stress hormones like cortisol and norepinephrine."