

PART I - A BRIEF LOOK INSIDE YOUR BRAIN

Chapter 1: My Story And Our Brain

The differences she could witness between her way and her older brother's way to relate with the world was what prompted Jill Bolte Taylor to study the human brain. Her brother would later be diagnosed with schizophrenia, while she was doing research on neuroanatomy for her Ph.D. in life science at Indiana State University. Our author led a highly praised and rewarding Harvard career, researching the underlying anatomical roots/consequences of mental disorders, until December 10, 1996, the day on which she experienced what she would later call "her stroke of insight", at 37.

My stroke and insight

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The hemorrhage came from an arteriovenous malformation and flooded her left hemisphere. As an attuned neuroscientist, she observed her brain functions shut down one by one, until she couldn't move anymore, nor speak, nor recall anything about her personality. The process fascinated her and she highlights that the "monkey mind" chatter of her left brain also disappeared completely. She writes:

"With that internal dialogue circuitry shut off, I sat in the center of a completely silent brain for five full weeks." She also lost her sense of self and describes how she stepped in the awe-inspiring experience of the present moment. She shares how beautiful it was. Having lost also the ability to identify the boundaries of the physical body, she felt like a ball of energy as wide as the entire universe.

"Shifted into this consciousness of my right brain. I perceived the essence of myself as enormous and expansive, and my spirit soared free. Like a great whale gliding through a sea of silent euphoria."

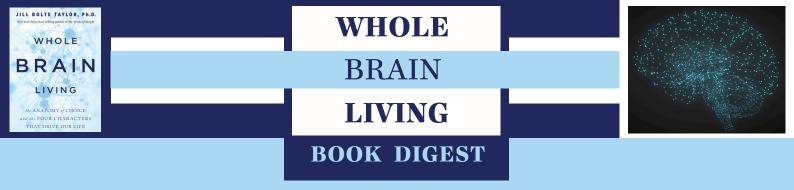
Even though she was trapped into a motionless body, the only emotion she kept was a blissful sense of peace.

It took eight years for her to fully recover all her physical abilities. She shares:

"During that time I regained the emotional circuits of resentment, guilt, embarrassment, as well as all the other more subtle feelings and emotions that make life alluring. Our emotions, even the negative ones, truly enrich our perception of experience and make life nuanced and more remarkable."

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Her memoir "My Stroke Of Insight: A Brain's Scientist's Personal Journey" summarized her journey. This second book has another mission: sharing the most valuable insight she received with us all. Indeed, the ordeal taught her that we can turn our emotional circuitry on and off by CHOICE.

Once an emotional circuit has been triggered, it takes only 90 seconds for the induced chemistry of that emotion to run through us and be flushed out. That is if we don't-consciously or not-reactivate the thought triggering that emotion, over and over. This is what she calls the 90 Second Rule and it will be described further in a later chapter.

The 'WE" inside of ME

She first described this idea of the "we" inside of our brains, aka our left and right brain, in her widely popular TED talk (this is still one of the most popular talks ever given over 15 years later). She shares how witnessing on the morning of her stroke, the dance between her functional left brain who was struggling to orchestrate her rescue and the blissful euphoria of her right brain allowed her to realize that everyone alive can find Nirvana. It made her want to survive anymore so that she could tell us! It also fueled her long journey towards recovery.

Here's how she ended her TED talk:

"I believe that the more time we spend choosing to run the deep inner peace circuitry of our right hemisphere, the more peace we will project into the world and the more peaceful our planet will be. And I thought that was an idea worth spreading."

> "We have the power to choose. moment by moment. who and how we want to be in the world."

What this means for you

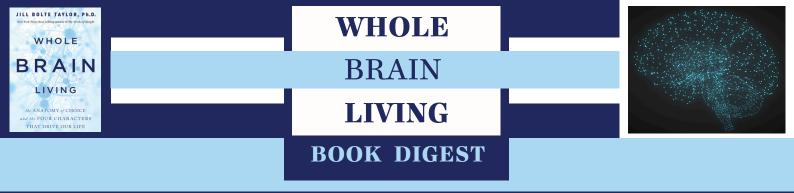
She highlights:

"(...) the public's response to that TED talk continues to be profound. It is clear that we, as a collective, are searching for a specific set of directions about how we can choose the peaceful mindset of our right hemisphere to counterbalance the chaos in our world. Many of us are in search of a paradigm shift for how we can embrace our deep inner peace, regardless of our situation."

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Most of us are yearning to release self-criticism and judgment, and she believes that by understanding the various groups of cells that compose our brains, we can empower ourselves and reclaim our ability to choose who and how we want to be in the world.

"Peace really is just a thought away. It is always right there. and always available for you to embody."

In this book, she marries the science of neuroanatomy and of psychology to study parallelly the structure of the brain and our mental processes. She will lead us through the conscious and unconscious realms of our left and right brains so that we can understand how they interplay. She compares this discovery to what Joseph Campbell described through the myth of the Hero's journey, where one must leave his ego-based left-brain consciousness and step into his right brain's consciousness. Because that's how we can feel connected to all that is and find true inner peace. That's how we can witness that peace truly is only one thought away.

And so she introduces us to the four characters, based on four distinctive groups of cells, divided between our two brain hemispheres. In the higher cerebral cortex, we have our left and right thinking centers (character 1 and 4). In the lower limbic system, we have the right and left emotional centers (character 2 and 3). Which underlines that contrary to common belief we do not have a thinking left brain and an emotional right one. Our rational mind does live in the left brain, but we have another thinking center in the right brain that is just as precious and potent. And both hemispheres hold cells from our emotional limbic system.

How we think and feel

At any given moment, our brain is busy thinking thoughts, translating emotions, and running the associated physiological responses. All of those rely solely on the health and well-being of the cells in charge of those functions.

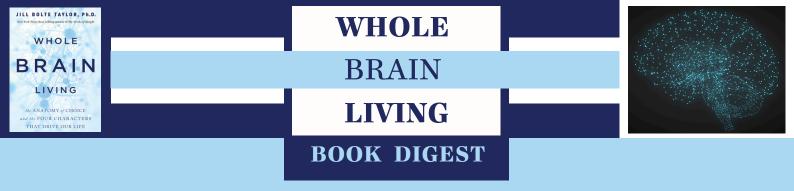
Let's review how it works:

Our limbic system is composed of structures that are mirrored within the left and right hemisphere, including two amygdalae, two hippocampi and two anterior cingulate gyri. And so we have two distinct modules for emotional processing, one within each hemisphere.



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The amygdala is the first filter and is always scanning the world for safety. Of note, safety as per the amygdala means familiar. What is not familiar tends to be labeled as dangerous and to trigger a fight-flight-freeze fear response. When this happens our hippocampi are unable to run our learning and memory circuitry. This is why we won't be able to think clearly until we pause and find a way to feel safe again. She explains:

"When our limbic anxiety circuit is triggered, we are neuroanatomically cut off from accessing our higher cortical thinking centers, which is where our learned knowledge is stored." This is why no amount of preparation makes a difference for those who have test anxiety.

Understanding this anatomical organization helps us comprehend how we can experience conflicting emotions! She highlights:

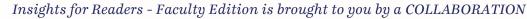
"At a neuroanatomical level, when we experience conflicting feelings, it is because we have two emotional groups of cells that are completely separate from one another in that they do not share any cells bodies."

In the same way, we have two different groups of cells PROCESSING those informations in a predictably different way.

- The left brain processes information in a linear manner, relying on sequences. This is why our left emotional brain (character 2, C2) brings information about the present moment in order for those to be COMPARED to the past—and that is why C2 is primed to say "No", to push things away and protect us from anything that might have harmed us in the past.
- C3 (our emotional right brain) works in the exact opposite way: it has no recollection of the past and processes experiences only and always in the present moment, in the "here and now". This is why it moves enthusiastically towards anything that feels enticing and like an adventure.

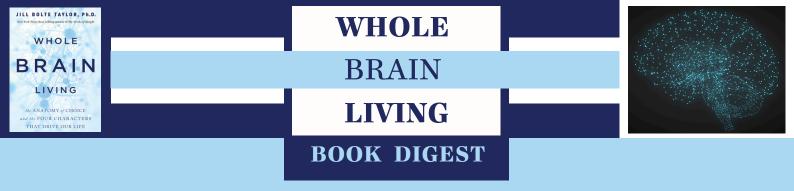
She writes::

"In the mammalian nervous system, a new species is often created by adding new brain cells on top of a well-integrated preexisting cellular matrix. When this happens, the new tissue is designed to refine and evolve the abilities of the tissue below. In the case of the human brain, although we share the cells of our deeper emotional limbic tissue with other mammals, such as dogs and monkeys, what distinguishes our human brain as unique are the newly added-on higher cortical cells of our two thinking brains."









Our higher thinking centers refine the info gathered from our sensory systems AFTER they've been processed by the limbic emotional cells. So, biologically, we are not thinkers able to feel, <u>we are feeling creatures that think.</u>

And that led into a most profound truth about human beings:

"Neuroanatomically you and I are programmed to feel our emotions, and any attempt we may make to bypass or ignore what we are feeling may have the power to derail our mental health at this most fundamental level."

She also reminds us that humanity is far from being a finished product! And that we're constantly evolving as a species.

We're busy integrating C1 and C2 (our left thinking and emotional brain), as well as C3 and C4 (our right thinking and emotional brain)—C1 and C3 being the most recent "adds-on" to our anatomy. On top of that we're connecting C2 and 4 (our emotional brains). And finally we're connecting C1 and C3 (our thinking brains).

Once all of this is complete, we will step into WHOLE BRAIN LIVING.

She writes:

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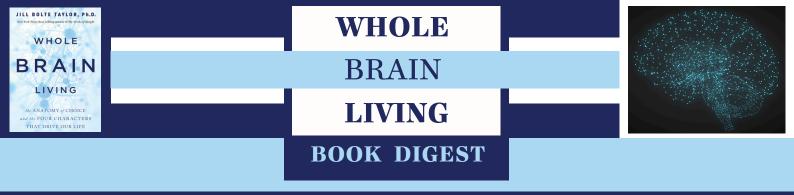
"Although our human brain is an evolving masterpiece in process, you don't have to look far to see how the differences between what our left and right hemispheres value (...) are playing out in our lives and in our society."

While reading this book, she urges us to be radically honest with ourselves on where our strengths and weaknesses lie so that we can meet all of ourselves and thereby our full potential.

"As long as we live in a society that rewards us for what we do. rather than for who we are. we will feel undervalued and unfulfilled. For many of us. our goal has been to "get rid of" or "fix" the most unruly. unattractive. or vulnerable parts of ourselves. But when we choose to embrace. listen to. and nurture all of our characters. we will mature. grow. and evolve into that person our dog already thinks we are."







Jill Bolte Taylor clarifies:

"(...) we are talking about four predictable and easy to identify characters that we all have, based on the anatomy of our brain. Every ability we have is completely dependent on the underlying brain cells that manufacture those abilities, and these four different groups of cells manufacture four different skill sets (...)"

Those are what she calls the Four Characters.

She also highlights that what a lot of authors call the "authentic self" is what she calls in this book Character 4 (C4). But that doesn't mean that that character is more authentic than the others!

"Each of these characters represents an authentic part of who we are at a cellular level and should be treated with dignity. respect. and honor."

What her stroke allowed her to realize is that we can not only learn how to recognize which character is running the show at any moment, but we can also choose if we're willing to let them continue or not. We can consciously decide to switch to another circuit.

Those four characters CAN interact and work together on our behalf.

So we really do have this incredible power to decide who and how we want to be and she's about to teach us how.



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