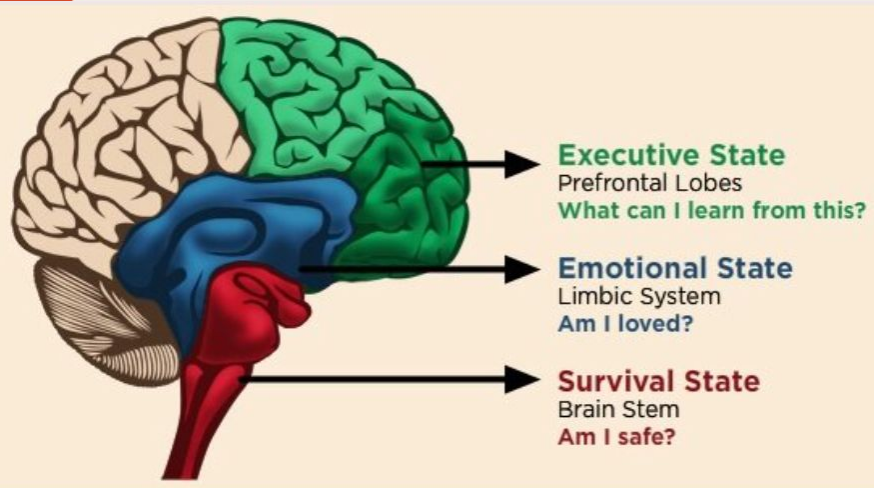


Neuroscience

Neuroscience, also known as Neural Science, is **the study of how the nervous system develops, its structure, and what it does**. Neuroscientists focus on the brain and its impact on behavior and cognitive functions.

Cognition refers to "the mental action or process of acquiring knowledge and understanding through thought, experience, and the senses"

Empathy Driven Advocacy



SHAME - The deeply painful feeling or experience of believing the we are flawed and somehow unworthy of connection, love and belonging.

GUILT - Shame is a focus on self while guilt focuses on behavior. I am bad vs. I did something bad.

EMPATHY - the ability to understand and share the feelings of another. Focusing on behavior, we are able to move towards change.

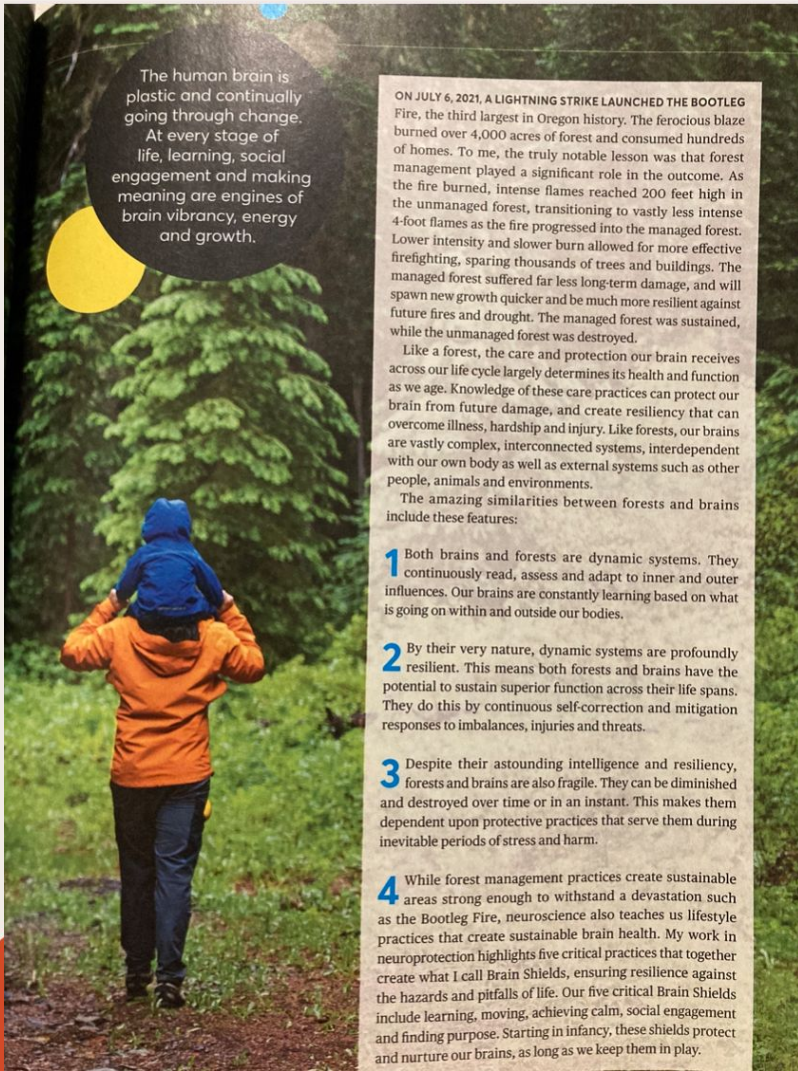
Parietal Cortex - area of the brain that lights up when we're feeling agitated

Prefrontal Cortex - area of the brain responsible for higher level thinking and regulating emotions

Fluid intelligence - Fluid intelligence is the ability to think abstractly, reason quickly and problem solve independent of any previously acquired knowledge.

Crystallized intelligence - Crystallized knowledge. the knowledge and understanding we have acquired.

Source: <https://www.verywellmind.com/fluid-intelligence-vs-crystallized-intelligence-2795004>



The human brain is plastic and continually going through change. At every stage of life, learning, social engagement and making meaning are engines of brain vibrancy, energy and growth.

ON JULY 6, 2021, A LIGHTNING STRIKE LAUNCHED THE BOOTLEG Fire, the third largest in Oregon history. The ferocious blaze burned over 4,000 acres of forest and consumed hundreds of homes. To me, the truly notable lesson was that forest management played a significant role in the outcome. As the fire burned, intense flames reached 200 feet high in the unmanaged forest, transitioning to vastly less intense 4-foot flames as the fire progressed into the managed forest. Lower intensity and slower burn allowed for more effective firefighting, sparing thousands of trees and buildings. The managed forest suffered far less long-term damage, and will spawn new growth quicker and be much more resilient against future fires and drought. The managed forest was sustained, while the unmanaged forest was destroyed.

Like a forest, the care and protection our brain receives across our life cycle largely determines its health and function as we age. Knowledge of these care practices can protect our brain from future damage, and create resiliency that can overcome illness, hardship and injury. Like forests, our brains are vastly complex, interconnected systems, interdependent with our own body as well as external systems such as other people, animals and environments.

The amazing similarities between forests and brains include these features:

1 Both brains and forests are dynamic systems. They continuously read, assess and adapt to inner and outer influences. Our brains are constantly learning based on what is going on within and outside our bodies.

2 By their very nature, dynamic systems are profoundly resilient. This means both forests and brains have the potential to sustain superior function across their life spans. They do this by continuous self-correction and mitigation responses to imbalances, injuries and threats.

3 Despite their astounding intelligence and resiliency, forests and brains are also fragile. They can be diminished and destroyed over time or in an instant. This makes them dependent upon protective practices that serve them during inevitable periods of stress and harm.

4 While forest management practices create sustainable areas strong enough to withstand a devastation such as the Bootleg Fire, neuroscience also teaches us lifestyle practices that create sustainable brain health. My work in neuroprotection highlights five critical practices that together create what I call Brain Shields, ensuring resilience against the hazards and pitfalls of life. Our five critical Brain Shields include learning, moving, achieving calm, social engagement and finding purpose. Starting in infancy, these shields protect and nurture our brains, as long as we keep them in play.

What We Struggle With

Emotional Reasoning

Emotional reasoning is the condition of being so strongly influenced by your emotions that you assume that they indicate objective truth.

Imagined Regret

The regret we think we'll feel if we make the wrong decisions

Cognitive Restructuring

Practicing more helpful ways of thinking and Take a close look at our thoughts

Black-or-White Thinking

Seeing things in extremes, all or nothing

Cognitive Distortion

A thinking error where we believe that how we want things to be is the way they should be

Practicing more helpful ways of thinking. What evidence is there for our thought? Is what we are thinking 100% true. Is there a middle option?

What's Working?

Stoicism

Helping us to reclaim control over ourselves, our emotions, and our reactions

Reappraising

Cognitive reframing of an experience. To reduce negative emotions that come with it

Epigenetics

How painful circumstances have altered our DNA

Truth Telling

Storytelling

Self Reflection

Strategy and Deadlines

Be Challenged

Declare Values

Accountability Partner

Affinity Groups

Integrated Problem Solving Community

Systematic Wellness

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Joy

Reappraise our worries,
activate prefrontal

cortex, quiet agitation
and settle into our lives