

Your Brain on Nature

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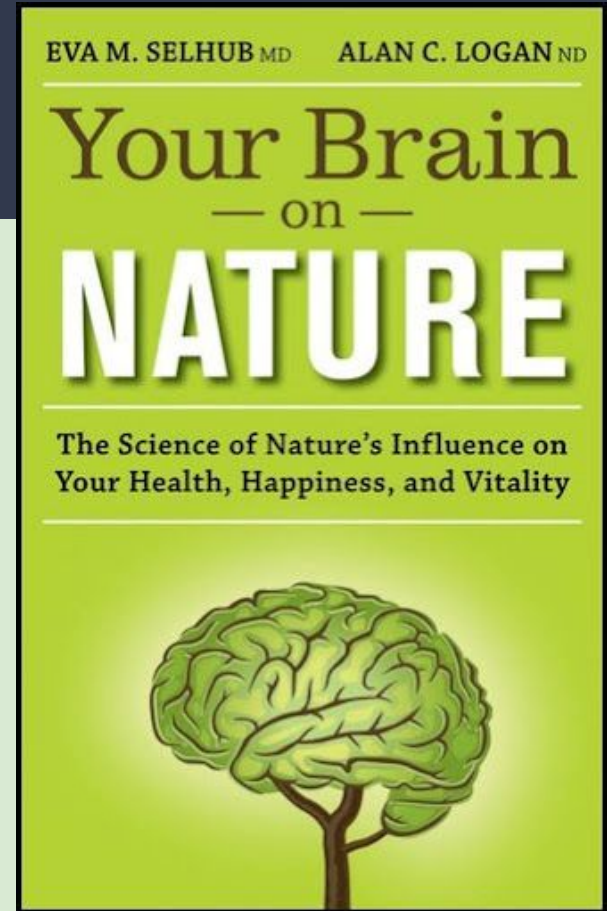
Summary

Think Better. Think Healthier. Think Green.

“Scientific studies have shown that natural environments can have remarkable benefits for human health. Natural environments are more likely to promote positive emotions, and viewing and walking in nature have been associated with heightened physical and mental energy. Nature has also been found to have a positive impact on children who have been diagnosed with impulsivity, hyperactivity and attention-deficit disorder.”

Our Intake:

- *Your Brain on Nature* was an informative book that covers the influence of technology and nature in humans' lives today, and the effects of both on our brains and neurological systems.



Chapters 1-3

Chapter 1 - Nature on the Brain: From Ancient Intuition to Magnetic Resonance Imaging

- Our childhood experiences with nature plays a big part in allowing us to value it today
- Harvard biologist Edward O. Wilson extended the definition of biophilia and observed that nature uniquely influences the human mind, having the potential to influence cognitions and behaviors.
- Ancient healers advocated nature exposure as a form of medicine mentally and physically
- Nature produces higher levels of activity and boost mental health and serotonin levels



Chapter 2 - Backs to Nature, Sights on Screens: Are We Happy Yet?

- Technology can be beneficial, but humans are more likely to be stressed, anxious, depressed, and distracted because of it. It has not fostered a better world for individuals or society.
- Nature based recreation has decreased by 50% in the last four decades. The expansion of daily screen time is coinciding with a broad nature displacement effect.



Chapter 3 - Nature and Cognition: What can Green do for You?

- Contemporary brain boosts from fast result technology causes inhibition fatigue. Inhibition is a key conductor of cognitive function and diverts the brain's energy for the technology that distracts us, instead of using it towards important attentional tasks.
- The brain is working hard when we use technology, but in all of the wrong ways.
- Cognitive restoration matters in this world, and nature can benefit cognition in the long run by reshaping the brain cells and the brain's plasticity.



Chapters 4-5



Chapter 4 - *Something in the Air Specific Elements of Nature on the Brain*

- True nature immersion is an experience that stimulates all of our senses, not only visual sense
- Aromas of nature: Plant derived vapors are capable of entering the brain through the intranasal pathway and then into the body-wide blood circulation.
- Greenspace provides endless amounts of chemicals that appear to balance mental outlook and effortless attention to the environment.
- Airborne Aromatic Chemicals: Experimental studies show that plant oil vapor can enhance the production of the brain's own calming chemical GABA, while also boosting mood-regulating serotonin function
- Smells of nature either stimulate (mood boost) or sedate (relax)

Chapter 5 - *Green Exercise is Like Exercise Squared*

- Physical activity can lift the mood, lower anxiety, and prevent daily stress.
- People with access to the outdoors are more inclined to exercise because it makes them feel better.
- A study was done between joggers in wooded areas vs non-wooded. Wooded joggers resulted in faster completion times, more satisfaction, more enjoyment, and less frustration than the open laps.
- Research suggests that jogging in nature allows subjects to go outside their internally focused thoughts and instead directed their thoughts to the environment in which they are surrounded.
- Green exercise not only increases intentions to stick with an exercise program but also increases self-esteem and positive effect.
- Exercise and greenspace immersion combines all the brain benefits of both.

Chapters 6-7



Chapter 6 - Kingdom Animalia: The Last Stronghold of Nature on the Brain

- Most people think that nature is made up of plants, trees, rocks, and water... a majority of nature however is the domesticated animals that exist there
- Animals make up a large part of a human's brain - the noises they make, the fur they allow us to wear, and the feelings of fear/serotonin they bring us
- The rapid attention that humans show to animals should not be surprising considering we have grown up with them for the last 2+ million years
- Animals = a man's ancient friend

Chapter 7 - Practical Nature Interventions: Horticultural and Wilderness Therapies

- **Horticultural** = gardening & **Wilderness** = nature immersion
- These two therapies can help the brain much like animals do, making us feel comfortable and familiar in a place that never changes while other elements around us (technology, society, money) do often change
- Gardening aids in mental health therapies because of the small pleasure of making something from dirt into a beautiful masterpiece
- Gardening changes people at a young age - it changes how they eat and how they view the planet around them



Chapters 8-9

Chapter 8- *The Brain on Nature's Nutrients: Nutri-Ecopsychology*

- Nutrition has an influence on cognition and brain fatigue, as well as protecting against depression and anxiety
- In early research they were looking at diets that would offset mentally taxing office work and found that fish was the most common brain food as it fitted for people who go through heavy brain work or have anxiety and distress
- Apples, prunes, tomatoes, almonds and walnuts were promoted by physicians in the *Women's Medical Journal* as foods that help cognitive function as well as support the brain and nervous system
- Studies have shown that a whole-foods diet close to nature has a better chance of protection against depression
- 60% of North Americans take vitamin-based supplements and 20% consume herb-based products

Chapter 9- *Vis Medicatrix Naturae: The Healing Power of Nature and Ecotherapy*

- “Nature is the physician of diseases”
- Nature assists our minds and helps steady and enrich our lives
- Nature is typically described as the internal healing response written into our DNA
- Professor J. Arthur Thomson describes nature as “the healing power of nature is associated with mindful immersion in and contact with the natural portions of our external world
- The book also gives a definition of nature to be “the non built, non synthetic environment, with its sights, sounds, aromas, plants, animals and unseen medican agents.