

The Changing of Your Brain and The Renewing of Your Mind

Dr. F. Alan Pickering

How can you grow as a Christian? The Bible asserts that you are “transformed by the renewing of your mind” (Romans 12:2, New International Version, 1984) and encourages you “to be made new in the attitude of your minds” (Eph. 4:23, New International Version, 1984). Let’s explore how this actually happens.

The Brain

You are an astonishing creation. In this realization about his own humanity, David declared: “Thank you for making me so wonderfully complex! Your workmanship is marvelous—how well I know it” (Psalm 139:14 New Living Translation). This is quite evident when we analyze the brain. Your brain is an astounding organ. It weighs 3 pounds and uses 20 percent of the oxygen you breathe and 20 percent of the calories you consume. You have 100 billion neurons (brain cells), which is about the number of stars in the Milky Way Galaxy. Each neuron can develop 10,000 connections or synapses to other brain cells. A piece of brain tissue the size of grain of sand contains 100,000 brain cells and 1 billion synapses all talking to each other. You have trillions of supportive cells called neuroglia,¹ which along with the neurons means your ability to store information is essentially infinite. By age 30, you have already stored 3 trillion ideas in your brain. And your brain, through the hippocampus, has the ability to produce new brain cells or neurons, at least around 700 each day given you stay healthy with respect to diet, sleep, and cardiovascular exercise.²

¹ Gary R. Vanden Bos, Editor, *APA Dictionary of Psychology* (Washington, D.C.: American Psychological Association, 2007), 620.

² Sandrine Thuret, “How to Grow New Brain Cells,” TED Talk, TED@BCG London, June 2015.

Mind/Brain Difference

It is important to realize that the mind and the brain are different.³ This issue has been debated over by many over the last 3000 years. The brain is your gray matter within your skull, which we will call your *organic-brain*. Your mind is the spiritual conscious self, which we will call you're your *transcendent-spiritual mind*. The separation between the organic-brain and the transcendent spiritual-mind is obvious. This has to be true otherwise you could not have acting: the actor's mind tells his brain to act sad in a particular scene, speak certain lines, and directs his brain and emotions (limbic system) to produce tears. Or the marathon runner gets to the 25th mile-marker and his brain says, "Stop the race; shut it down right now." But his mind abjures and says, "Shut up; we are going to finish this race—just 1.1 miles to go." Going into fantasy (good or bad fantasy) is the mind actually directing the brain to produce the fantasy, as if it were real to the person. Similarly, you are shaken by what you are seeing on a movie screen. Your brain believes it is real, but your mind steps in and tells your brain, "Calm down; it is just a movie." These are just a few examples we could give to delineate the mind from the brain.

Cognitive Constructs/Schemas in Your Brain

Your thinking about things is rooted in the cognitive constructs or schemas that you have developed in your brain. Ideas, beliefs and experiences coalesce together (through the direction of the hippocampus) and communicate brain cell to brain cell to each other through neuropathways. They develop into constellations or sets that determine how you interpret life and function. If you recognize that particular ways of thinking, emotions and behaviors are

³ Daniel J. Siegel, *The Developing Mind: How Relationships and the Brain Interact to Shape Who We Are*, 2nd ed. (New York: Guilford Press, 2012), 1-10; Curt Thompson, *Anatomy of the Soul: Surprising Connections Between Neuroscience and Spiritual Practices that can Transform Your Life and Relationships* (Carol Stream, Illinois: Tyndale Momentum, 2010), 5-7; Neil R. Carlson, *Foundations of Behavioral Neuroscience*, 8th ed. (New York: Allyn & Bacon, 2011), 2-3.

flawed, how then can this change? Your mind (the transcendent-spiritual self), under the influence of God must build your organic-brain. This will come by intentionally building a new cognitive construct involving new ideas, beliefs, and having different experiences. Figure 1 depicts this action.

| Flawed Cognitive Construct/Schema | | New and Better Cognitive Construct/Schema |
|--|---|--|
| Inferior Flawed/Worldly Ideas | → | Superior Spiritual/Biblical Ideas |
| Inferior, Misguided Beliefs | → | Superior Spiritual/Biblical Beliefs |
| Inferior/Sinful Experiences | → | Superior Spiritual Experiences |

Satan can certainly influence your mind to build a different brain that will minimize you and even destroy you (2 Cor. 4:4), but under the influence of God, your mind can build a wonderful brain

Building New Cognitive Constructs/Schemas

Let me briefly list ways you can start building new constructs in your brain through which you will start functioning in better spiritual and wise ways. *First*, integrate the superior ideas of Scripture, theology, truth, and wisdom onto your very brain cells through reading, meditating, and memorizing verses of Scripture (Ps. 119:97; Jam. 1:21). *Second*, speak the ideas of God to yourself out loud frequently (perseveration) and with passion (asseveration) through the use of neural linguistics (Pr. 18:21). Scriptures can be utilized as neural linguistics or statements of truth (e.g., “I am valuable as a human being made in God’s image. I have no right to diminish my value. I will be valuable to every person I come into contact today.”). By doing this, you/your mind will force your brain cells to accept truth and move your neurons to cultivate new neuropathways. *Third*, utilize creative images to engage your entire brain and reinforce the truth you are trying to integrate into your cognitive construct. Jesus’ used stories and creative images to build concepts into the thinking of his disciples. *Fourth*, plan new and better experiences that reinforce the concepts you are building in your mind (e.g., experiencing

fellowship with God's people on a deeper level). Practice the ideas/behaviors of God (Jn 13:15-17; 15:7, 9-17; Mt. 7:24; Lk 8:1-15; Rom. 12:2; Heb. 5:14; Jam. 1.21).

Resources

Carlson, Neil R. *Foundations of Behavioral Neuroscience*, 8th ed. New York: Allyn & Bacon, 2011.

Siegel, Daniel J. *The Developing Mind: How Relationships and the Brain Interact to Shape Who We Are*, 2nd ed. New York: Guilford Press, 2012.

Thompson, Curt. *Anatomy of the Soul: Surprising Connections Between Neuroscience and Spiritual Practices that can Transform Your Life and Relationships*. Carol Stream, Illinois: Tyndale Momentum, 2010.

Thuret, Sandrine. "How to Grow New Brain Cells." *TED Talk*, TED@BCG London, June, 2015.

Vanden Bos, Gary R. Editor, *APA Dictionary of Psychology*. Washington, D.C.: American Psychological Association, 2007.