

# The Power of Truth to Change the Brain

written by Tim Jennings, M.D. | May 10, 2018



An online listener sent in this very interesting quote from a book entitled *The Desire of Ages*:

Christ affirmed that His word was in itself a key which would unlock the mystery to those who were prepared to receive it. It had a self-commending power, and this was the secret of the spread of His kingdom of truth. He desired Pilate to understand that only by receiving and appropriating truth could his ruined nature be reconstructed. (P. 727.)

Could it really be true that understanding and accepting the truth could change us? Can truth internalized really reconstruct our nature?

Jesus said, "You will know the truth, and the truth will set you free." (John 8:32) From what does truth set us free? From lies, distortions and misunderstanding, all of which cause fear, insecurity and doubt, resulting in selfishness. And where does the battle to free yourself from lies, distortion, fear and insecurity occur? In your mind!

Jesus taught, in metaphor, that it is by assimilating the truth He brings that we receive life.

“I am the bread of life. He who comes to me will never go hungry, and he who believes in me will never be thirsty... I am the living bread that came down from heaven. If anyone eats of this bread, he will live forever. This bread is my flesh, which I will give for the life of the world... I tell you the truth, unless you eat the flesh of the Son of Man and drink his blood, you have no life in you. Whoever eats my flesh and drinks my blood has eternal life, and I will raise him up at the last day. For my flesh is real food and my blood is real drink. Whoever eats my flesh and drinks my blood remains in me, and I in him.” (John 6:35, 51,53-56)

Bread, when taken into the body, is broken down into molecules that become building blocks of the various tissues of our body—the bread becomes our bodies. Likewise, Jesus, who is the *Word* made flesh, is the source of all truth. As we “ingest” the Word, the truth of God as Jesus revealed, those truths become building blocks of our ideas, concepts, belief and perspectives which form our values and shape our characters. We are changed by internalizing the truth!

Modern neuroscience and quantum mechanics gives insight into how what we choose to believe changes us.

Our brains are amazing quantum computers, composed of 100 billion neurons and over one trillion supporting cells. Each neuron can have up to 10,000 connections (dendrites) to other neurons. That’s over 40 quadrillion interconnections!

Forty quadrillion is a number so vast it is really beyond our comprehension, but let’s try to wrap our minds around it. Most of us can conceive of one million (1,000,000). If we were to travel back in time one million seconds we would only go back 11.5 days. One-thousand million is 1 billion (1,000,000,000); if we went back in time one billion seconds, we arrive 35 years in the past. One-thousand billion is a trillion (1,000,000,000,000); if we went back in time 1 trillion seconds, we would find ourselves 31,000 years before Christ. And one-thousand trillion is a quadrillion (1,000,000,000,000,000); if we travelled back one quadrillion seconds, we would be 24 million years in the past. Forty quadrillion seconds back in time would be nearly 1 billion BCE.

Now, these 40 quadrillion interconnections in our brains are comprised primarily of dendrites. Within *each* neuron there are 10 million microtubules and each microtubule is made up of billions of tubulin molecules, which in turn are composed of 445 amino acids that are made of various atoms, many of which share electrons.

Within these quadrillions of dendrites, with their millions of microtubules made of billions of tubulin molecules, the atoms form shared electron clouds. These clouds exist in positions of uncertainty until you think about something and form a conclusion, a belief, accept a truth—or a lie. Your act of choosing to believe something will cause the electron clouds, in various places within the dendrites, to collapse. This causes conformation change within the microtubules structure, which solidifies the memory or belief into the brain. Your belief and memory are stored within the brain tubulin structure until something happens to cause you to reexamine or reevaluate the belief or memory and come to a different conclusion. This is how memories are stored, beliefs are housed, and mindsets are established.

It is by examining evidence, facts and truths, thinking them through for ourselves, and choosing the truth that we make changes in our brains. It is also why some people seem impervious to new truth; having previously chosen to believe a lie and then reinforcing that false belief with further choices to

act on it, causes that false belief or lie to become solidified within the brain structures. In order for truth to impact such a mindset (a mind which is set into a certain view), an event of significant importance to that person must occur, which will motivate them to reexamine their current view.

This is why the Bible tells us to rejoice in trials, because they help us build character. What the Bible is saying is that when difficulties come for which we don't have an answer and that don't fit our current understanding, our minds enter a period of uncertainty. It is then that we have the opportunity for maturing and overcoming. In that position of uncertainty, new ideas, truths, and facts can be evaluated and, if chosen, we grow in our understanding, character and maturity, and our brains register and store that growth.

When new ideas are presented that don't fit with our current understanding, we make choices; either we reevaluate and, based on new evidence, new insight and new reasons, change our current understanding, which changes the various conformation of the microtubules, or we reject the new understanding, making the previous belief more solidified.

Truly, we are incredible beings, created in the image of our amazing God, with genuine ability to think and to choose. I encourage you to ingest the Word, the truth that Jesus revealed; become a thinker, evaluate the evidence for yourself, and choose to accept and apply the truth in your own life and thereby be transformed by the renewing of your mind!