



*Revealing the inner beauty of the Torah in a way that touches and inspires the Jewish soul*

## NEUROPLASTICITY

B.S.D.

By: Rabbi Chaim Zwick

Neuroplasticity is arguably the greatest and most significant breakthrough in neuroscience research since scientists first sketched out the brain's basic anatomy. This revolutionary discovery overthrows the age-old notion that the brain is fixed and unchanging. This new, scientifically validated, brain-based research teaches us that the brain is a plastic living organ which actually can develop and change itself.

Based on more than 30 years of brain research, the discovery of neuroplasticity promises to have a profound impact on the way we look at human potential.

Neuroplasticity not only gives hope to people with certain limitations, it also expands the possibilities for people with healthy brains. There is riveting evidence and a collection of case histories which detail learning disorders cured, IQ's raised, aging brains rejuvenated, entrenched depression and anxiety disappearing, life-long character traits altered, and increased potential to achieve optimal performance in life, business and sports.

Experiments in brain research conducted by Alvaro Pascual Phd, M.D., from the Laboratory for Magnetic Brain Stimulation at Harvard Medical School, has scientifically proven that we can change our brain's anatomy by simply tapping the power of our imagination.

Finally, achieving fast, effective, and enduring results, which can have a positive and lasting effect on our lives, are real and viable.

One reason we can change our brain simply with the power of imagination is that, from a neuro-scientific point of view, imagining an act and doing it are not as different as they seem. When people close their eyes and visualize a simple object, the primary visual cortex lights up in the brain as if you actually looked at the object.

Brain scans show that in action and imagination, many of the same parts of the brain are activated. While we have yet to understand exactly how thoughts actually change brain structure, scientific research has proven, beyond a doubt, that it does.

We all wonder what leads some extraordinary people to confront and exceed their goals and compete at the highest level, while others seem to always struggle, burdened by doubt, uncertainty and fear. Brain research has taught us that our thoughts are either focused or scattered, and that the average person has about 3,000 thoughts per day, with 60 - 70% of these thoughts being negative.

If we can change those negative thoughts to positive thoughts, we can change how people feel. If we can change how people feel, we can change how they perform. If we can change how people perform, we can change the results they get. And if we can change the results people get, we can change their lives.

The possibilities are endless as we, as a human race, begin to tap more and more of our brain's hidden potential. The Torah validates the concept of Neuroplasticity at the beginning of Sefer Bereshis. It is there that the Posuk tells us that Hashem created 2 big lights - the sun and the moon. The same Posuk concludes by saying, " the big light to rule in the day and the small light to rule in the night." The famous commentary on the Chumash, Rashi, is bothered by this obvious contradiction. If Hashem created 2 big lights, where did the small light to rule in the night come from? To answer this inconsistency, Rashi explains that originally Hashem did in fact create 2 big lights - the sun and the moon. However, since



*Revealing the inner beauty of the Torah in a way that touches and inspires the Jewish soul*

the moon proclaimed that it is impossible to have 2 rulers with one crown, that became the moon's reality, it was diminished in size.

From here the Sages teach us, one of the most important lessons in the Torah. A lesson that has been validated by over 30 years of scientific brain based research - the brain is one of the most powerful forces in the universe and through thought it has unlimited power to mold and shape our reality. Since the moon's thoughts were limited - its entire reality became a mere reflection of its narrow beliefs.