The Waves of the Future

By Dr. Joe Dispenza

Most of us already know that the brain is electro-chemical in nature. When nerve cells fire, they exchange charged elements that then produce electromagnetic fields. In fact, we generate more electrical impulses between our ears in one day, than do the total number of cell phones on the planet during that same amount of time. Because the brain's diverse electrical activity can be measured and calibrated, these effects can provide us with important information about what we're thinking, feeling, learning, dreaming, and creating, as well as how we are behaving or processing information. The way scientists record the brain's changing electrical activity is by utilizing an electroencephalograph (EEG).

Research over the years has displayed a wide scope of brain wave frequencies ranging from very low brain activity found in deep sleep called Delta waves, to high thinking brain waves called Beta waves. By understanding the different patterns of brain wave activity in human development, we can better influence how children learn, experience, and act. Let's look at the progression of developmental brain wave stages found in growing children.

Between birth and two years old, the human brain functions primarily in the lowest brain wave activity, which is from 0.5 to 4 cycles per second. This range of electromagnetic activity is known as Delta waves. In other words, a young baby is typically asleep with their eyes open. This phenomenon explains why a new born usually cannot remain awake for more than a few minutes at a time. The trance state that infants exhibit suggests that newborns have very little analytical faculties. Information from the outside world enters their mind and brain without any analysis, judgement, editing, or critical thinking. In fact, sensory information that an infant processes is encoded directly into their subconscious mind.

From about 2 years to 5 or 6 years of age, a child begins to demonstrate slightly higher EEG patterns. These brain waves are called Theta waves and they can be measured between 4 to 8 cycles per second. Theta waves are the twilight state in which some people find themselves half awake and half asleep. This state is evident in adults when the conscious mind is awake and the body is somewhat asleep. This is also the hypnotic state where there is access to the subconscious mind. In Theta, we are more programmable because there is a thin veil between the conscious mind and the subconscious mind.

Let's examine what is meant by the subconscious mind. Because of the research done in brain wave frequencies, we now know that when we are born, we are totally subconscious mind. The developing human learns from positive and negative identifications and associations that give rise to habits and behaviors. A good example of a positive identification is when an infant is hungry or uncomfortable and cries out. As the child makes an effort to communicate in order get its mother's attention and as the nurturing parent responds by feeding the child or by changing her diaper, the infant makes an important connection with the outside world. It only takes a few repetitions before the infant learns to associate crying out with being fed or becoming comfortable. It becomes a behavior.

A good example of a negative association is when a two year old child puts his finger on the hot stove. He learns very quickly to identify the object he sees, the stove, with the pain he is feeling and, after a few tries he learns a valuable lesson. In these examples, we could say that it is the sensory stimuli from the outside world that produces an internal chemical change in the body. And in time, when the developing mind pays attention to whatever it was in the environment that created the

internal change, be it pleasure or pain, that process is an event in and of itself. It's called a memory. This type of associative memory requires little conscious awareness.

Somewhere between the ages of 5 and 8, our brain waves change again to an Alpha wave pattern. In Alpha, the brain is in a light meditative state. When we close our eyes and eliminate all of the sensory information from the environment, alpha waves are produced in the brain. We tend to think less because there is little information being integrated from the external environment. We relax. It is at this point in child development that the analytical mind begins to form. The child is genetically changing and along with the sum total of the environmental cues he has experienced, both will influence the growing nervous system. As a result of this type of brain wave activity, children begin to interpret and draw conclusions about the laws of external life. This is just about when children figure out that there is no Santa Claus. As the analytical mind forms at this age, it acts as a barrier to separate the conscious mind from the subconscious mind.

Most psychology texts tell us that the subconscious mind makes up about 90% of who we are. The conscious mind is therefore 10% of the total mind. While the subconscious mind is made up of those positive and negative identifications and associations that give rise to habits and behaviors, the conscious mind is primarily made of logic and reasoning which contribute to our will. It is at this point in development that we function more of the time from our rational thinking as well as conscious decision making abilities. We begin to form the ego. Resultantly, this type of thinking creates Beta wave patterns on EEG machines.

Young children therefore, have the ability to absorb vital information directly into their subconscious minds because of the way the brain develops. We are highly adaptive during our early years of life so that we can organize cultural beliefs and societal behaviors into our nervous systems. The opportunities we provide for our offspring will directly dictate the experiences they will embrace in their own personal reality at some future time. And their actions will then influence the next generation the same way. The brains plasticity, combined with the multitude of mirror neurons it contains, afford the young mind the natural innate ability to imitate whatever that mind embraces in the environment. By providing the proper models early enough in a contemporary educational system, in a family setting, or in society, we may subconsciously teach our children the proper rules of this game called of life.