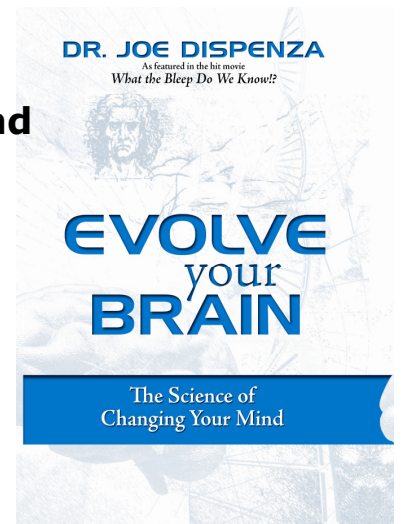


'Evolve Your Brain'

The Science of Changing Your Mind

Dr. Joe Dispenza
Author Interview



1. What inspired and motivated you to write this book?

An experience I had 20 years ago inspired me to investigate the power of the brain to alter our life. As I describe in the book, much of my spine was crushed in a bike accident, and four surgeons said my only option to avoid paralysis was a type of surgery that would have left me with a permanent disability and possibly, lifelong pain. I had to make the toughest decision of my life, but I turned down the surgery and turned instead to the innate intelligence that constantly gives life to everyone one of us. Ten weeks later, without surgery, I was back at work, completely healed and pain-free. I give credit in the book to many factors that contributed to my healing.

Because of that experience, I promised myself to spend a major portion of my life studying the phenomenon of mind over matter and spontaneous healing, meaning how the body repairs itself or rids itself of disease without traditional medical interventions such as surgery or drugs. And so I've spent many years studying about human potential, about our ability to transcend or be greater than our personal limitations, and about the interconnectedness of the brain, the mind, the body, and consciousness.

Until just a few decades ago, science had led us to believe that we were doomed by genetics, hobbled by conditioning, and should resign ourselves to the proverbial thinking about old dogs not being able to learn new tricks. However, what I've discovered in studying the brain and its effect on behavior the last 20 years has made me enormously hopeful about human beings and our ability to change. We have just needed to know *how* to change, and today, neuroscience has a very solid explanation for how mind over matter works; it's no longer a pie-in-the-sky concept. The science of changing our mind is now available, and I wrote **Evolve Your Brain** to help make this science accessible to everyone.

2. Is **Evolve Your Brain** a self-help book? How is it different from other books that concern human potential?

Helping us understand and accept that we truly can modify our brain and change our life is a major focus of this book. My approach is to unify the most helpful new findings from neuroscience, neurophysiology, biology, and genetics, and build the reader's knowledge in a systematic, easily understandable, and hopefully engaging way. Yet as the book makes clear, knowledge must be experienced before it can become wisdom. **Evolve Your Brain** is designed to serve as a practical tool to

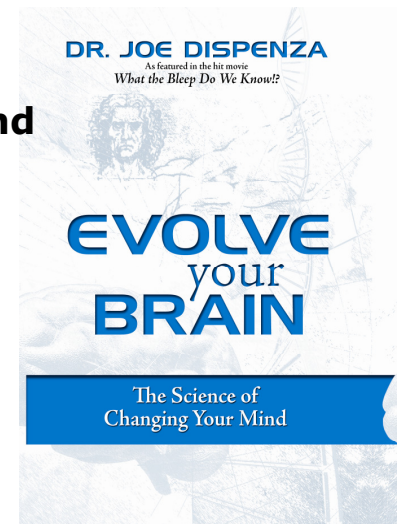
'Evolve Your Brain'

The Science of Changing Your Mind

Dr. Joe Dispenza
Author Interview

guide us as we experience the processes that we can use to change our mind and evolve our brain.

Unlike self-help or human potential books that focus on the mind, the emotions, or the body but place little attention on the brain, this book embraces the structure and function of the crown of our evolution. Everything that we do takes place through the brain – how we think, how we act, how we feel, our relationships, our perceptions of the world around us – because our “self,” as a sentient being, is immersed and truly exists in the electrical web of our cellular brain tissue. Then, since we can’t hope to evolve our brain without changing our mind and understanding the role of our feelings, ***Evolve Your Brain*** explores how they all interact with the body to create our life.



3. **Many of us learned in school that once we become adults, the brain is static and rigid. How much potential do we have to change our brain?**

Those of us who went to school 20 or 30 years ago were taught that the brain is hardwired, meaning that by the time we’re adults, we have a certain number of brain cells that are arranged in fixed patterns or neural circuits, and that as we get older, we lose some of those circuits. We thought that we would inevitably turn out like our parents in many ways, because we could only use the same neural patterns that we genetically inherited from them.

Neuroscientists now say that was a mistake. The great news is, each of us is a work in progress, throughout our life. Every time we have a thought, different areas of our brain surge with electrical current and release a mob of neurochemicals that are too numerous to name. Thanks to functional brain scanning technology, we can now see that our every thought and experience causes our brain cells, or neurons, to connect and disconnect in ever-changing patterns and sequences. In fact, we have a natural ability called *neuroplasticity*, which means that is we learn new knowledge and have new experiences; we can develop new networks or circuits of neurons, and literally change our mind.

4. **So, why is it hard for us to change?**

In my practice as well as my personal life, I have seen that change isn’t easy. When people want to commit to a goal, they start out with good intentions and ideas, but quite often they go back to their unwanted habits. The concept of

'Evolve Your Brain'

The Science of Changing Your Mind

Dr. Joe Dispenza
Author Interview

change means that we are going to do something differently within the same environment; we're not going to respond to our environment with our customary thoughts and reactions. That, however, is easier said than done. Many of us tend to think the same thoughts, have the same feelings, and follow the same routines in our life. The rub is, this causes us to keep using the same patterns and combinations of neural circuits in our brain, and they tend to become hardwired. This is how we create habits of thinking, feeling, and doing.

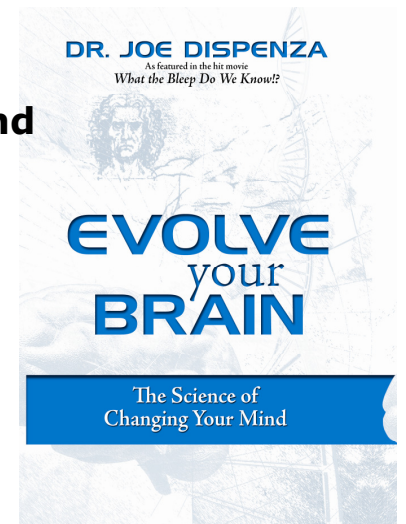
Don't get me wrong, hardwiring isn't a bad thing. Thanks to hardwiring, when we learn a new skill such as driving a car, the more we practice, the more we hardwire what we learn into our brain's circuits, and eventually we can operate a car automatically. But if we want to change something in our life, we have to cause the brain to no longer fire in the same old sequences and combinations. We have to create a new level of mind by disconnecting the old neural circuits and rewiring our brain in new patterns of nerve cell connections.

The good news we're learning from the latest brain research is that we can change the brain and thus change ourselves, if we take just a few simple steps. **Evolve Your Brain** will take the reader step by step through the knowledge and "how-to" steps needed to change any area of our life.

5. What does stress do to the body? Can *Evolve Your Brain* help people to overcome stress?

As a doctor of chiropractic, I've seen first-hand the effects of stress on my patients. It is not short episodes of acute stress, but chronic, long-term stress that most weakens the body. Most of us rarely face the immediate threats to physical survival that our ancestors had to deal with, so we may fail to realize the impact on us of years spent worrying about job security, credit card debt, whether our kids will experiment with drugs, and so on. When we chronically live in high-stress mode, or when we are constantly looking for problems that may affect us at some future moment, we engage the body's emergency response to stress all the time.

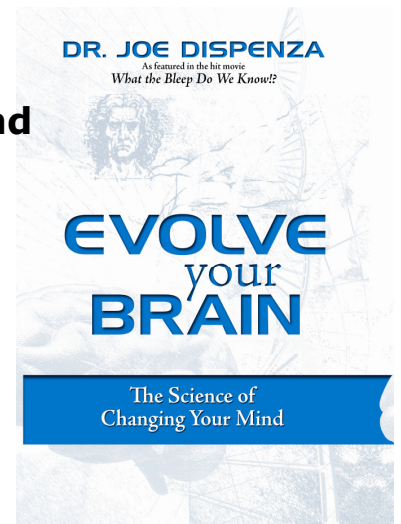
Why is this such a problem? The chemicals that continually flood our body when we are under long-term stress are the culprits that begin to alter our internal state and pull the trigger of cellular breakdown. Moreover, when we're always on high alert or in emergency mode, our body doesn't have the time or the resources necessary to repair and regenerate itself. The body can even become addicted to the chemical state of being under stress.



'Evolve Your Brain'

The Science of Changing Your Mind

Dr. Joe Dispenza
Author Interview



But as we'll demonstrate, the ability to overcome stress lies right between our ears. Most stress ends up as emotional/psychological stress, and that means it's the autosuggestions of our own thinking that affect the body so intensely. In other words, we can turn on the stress response by our thoughts alone, and they can have the same measurable effects as any threatening stressor in our environment. In ***Evolve Your Brain***, we will learn how to overcome the thoughts that initiate stress responses.

6. **Can evolving the brain help people to overcome emotional addictions?**

Aside from dealing with physical ailments, this book is also intended to address another kind of affliction – emotional addiction, which always accompanies high stress levels in our life. We've all experienced emotional addiction at some point in our life. Among its symptoms are lethargy, a lack of ability to focus, a tremendous desire to maintain routine in our daily life, the inability to complete cycles of action, a lack of new experiences and emotional responses, and the persistent feeling that one day is the same as the next and the next.

What was once a scientific theory now has practical applications for us to heal our own self-inflicted emotional wounds. The methods I suggest are not a wouldn't-it-be-wonderful, self-help miracle cure. Be assured, this book is grounded in cutting-edge science. How is it possible to end this cycle of negativity? The answer, of course, lies in you. And in this case, in a very specific part of you. Through an understanding of the various subjects we will explore in the book and a willingness to apply some specific principles, you can heal yourself emotionally by altering the neural networks in your brain.

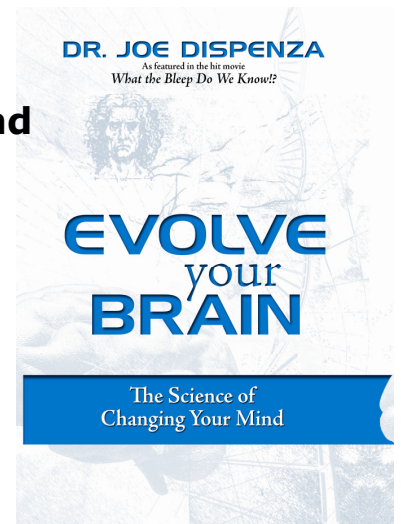
7. **Can you explain the mind/body connection? What is the relationship between thoughts and the physical body?**

An emerging scientific field call *psychoneuroimmunology* is demonstrating the connection between the mind and the body, and is beginning to help us understand the link between how we think and how we feel. We now know that our every thought produces a biochemical reaction in the brain. The brain then releases chemical signals that are transmitted to the body, where they act as messengers of the thought. In this way, the thoughts that produce these chemicals in the brain allow our body to *feel* exactly the way we were just *thinking*.

'Evolve Your Brain'

The Science of Changing Your Mind

Dr. Joe Dispenza
Author Interview



Essentially, when we have happy, inspiring, or positive thoughts, our brain manufactures chemicals that make us feel joyful, inspired, or uplifted. For example, when we look forward to a pleasurable experience, the brain immediately makes a chemical *neurotransmitter* called dopamine, which turns the brain and body on in anticipation of that experience, and we feel excited. If we have thoughts of hate, anger, or insecurity, the brain produces chemicals that the body responds to in a comparable way, and we feel hateful, angry, or unworthy. Another chemical that our brain makes, called ACTH, signals the body to produce chemical secretions from the adrenal glands that make us feel threatened or aggressive.

When the body responds to a thought by having a feeling; the brain, which constantly monitors the status of the body, notices that the body is feeling a certain way. In response to that bodily feeling, the brain generates thoughts that produce corresponding chemical messengers, so that we begin to *think* the way we are *feeling*. Thinking creates feeling, and the feeling creates thinking, in a continuous biological feedback loop. This cycle eventually creates a particular state in the body – what we call a *state of being* – that determines the general nature of how we feel and behave.

For example, say a person lives much of her life in a repeating cycle of thoughts and feelings related to unworthiness. The moment she thinks about not being good enough, smart enough, or enough of anything, her brain releases chemicals that produce a bodily feeling of unworthiness. Now she is feeling the way she was just thinking. Her brain notices that, and she begins to have thoughts of insecurity that match the way she was just feeling. Her body is now causing her to think. If her thoughts and feelings continue, year after year, to generate the same feedback loop between her brain and her body, she will exist in a state of being that is called “unworthy.” These repeated chemical signals cause the cells of the body to function in undesirable ways, making us sick.

This starts to explain how the mind can physically modify the body. In the book I talk about a man I called Tom, who developed one digestive ailment after another. This finally led him to examine his life, and he realized he had been suppressing feelings of anger and desperation over being in a job that made him miserable. Tom’s mind and body were in a feedback loop of thinking and feeling that amounted to toxic attitudes that his body just “couldn’t stomach.” He had been living in a state of being revolving around victimization. His healing finally began

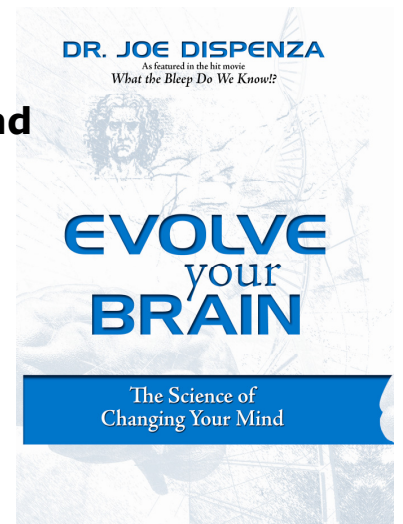
'Evolve Your Brain'

The Science of Changing Your Mind

Dr. Joe Dispenza
Author Interview

when he paid attention to his habitual thoughts and realized that his unconscious attitudes were the basis for the person he had become.

There is significant scientific evidence suggesting that the mind has a direct effect on the body...both for better and for worse. Research demonstrates that we can cause our bodies to be sick just by the anticipation of a future event or the memory of a past experience. In both cases, it is our thoughts that are creating powerful chemicals of stress to alter most of the systems in our body. So what we think about and the intensity of these thoughts directly influences our health, the choices we make, and our quality of life.



8. What then, is the mind, and how is it related to the brain?

Now that we have the technology to observe a living brain, we know from functional brain scans that the mind is the brain in action. This is the latest definition of mind, according to neuroscience. When a brain is alive and active, it can process thought, learn new information, invent new ideas, master skills, recall memories, express feelings, refine movements, and maintain the orderly functioning of the body. The animated brain can also facilitate behavior, dream, perceive reality, and most important, embrace life. In order for the mind to exist, then the brain must be alive.

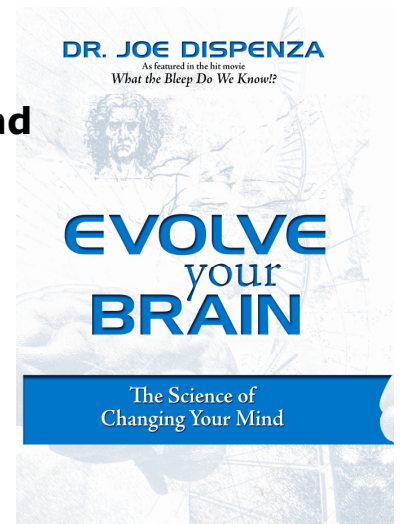
The brain is therefore not the mind; it is the physical apparatus through which the mind is produced. The brain facilitates mind. We can think of the brain as an intricate data processing system that enables us to gather, process, store, recall, and communicate information within seconds, if need be, as well as to forecast, hypothesize, respond, behave, plan, and reason. The brain is also the control center through which the mind coordinates all of the metabolic functions necessary for life and survival. So when your bio-computer is "turned on" or alive, and it is functioning by processing information, it produces mind.

The brain has three individual anatomical structures with which it produces different aspects of mind. We also have a conscious mind and a subconscious mind, and both are the result of a brain that is coordinating thought impulses through its various regions and substructures. Therefore, there are many diverse states of mind, because we can easily make the brain work in different ways.

'Evolve Your Brain'

The Science of Changing Your Mind

Dr. Joe Dispenza
Author Interview



9. What is neuroplasticity?

Neuroplasticity is our natural ability to change how the brain's neurons are connected and organized into circuits, which we call its synaptic wiring. Every time we learn something new or have a novel experience, the brain makes new synaptic connections to form new neural patterns of networks – and this happens at any age. When we utilize new circuits in new ways, we rewire the brain to fire in new sequences. From a neurological level, then, we are changed moment to moment by the thoughts we think, the information we learn, the events we experience, the reactions we have, the feelings we create, the memories we process, and even the dreams we embrace. All of these alter the way the brain works, producing new states of mind that are recorded in our brain.

Neuroplasticity is an innate, universal genetic feature in humans. It affords us the privilege to learn from experiences in our environment, so that we may change our actions and modify our behavior, our thought processes, and our personality to produce outcomes that are more desirable. Merely to learn intellectual information is not enough; we must apply what we learn to create a different experience. If we could not synaptically rewire our brain, we could not change in response to our experiences. Without the ability to change, we could not evolve, and we would be at the mercy of our genetic predispositions. How neuroplastic our brain is depends on our ability to change our perception of the world around us, to change our mind, to change our *self*.

10. What is mental rehearsal and how can we use it to change?

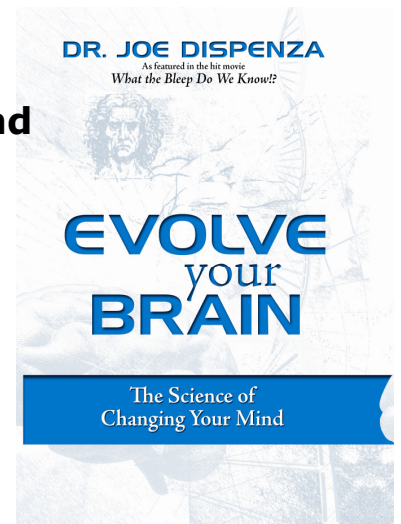
Mental rehearsal allows us to change our brain – to create a new level of mind – without doing anything physical other than *thinking*. It involves mentally seeing and experiencing our "self" demonstrating or practicing a skill, habit or state of being of our own choosing. Through mental rehearsal, we can employ the advanced faculties of our frontal lobe to make significant changes in our life.

Several studies have shown that the brain does not know the difference between what it is thinking internally and what it is experiencing in its external environment. In one experiment, two groups of non-pianists were asked to learn one-handed piano exercises and to practice two hours a day for five days – with one important difference. One group physically practiced their exercises, while the other mentally rehearsed the same exercises without using their fingers. At

'Evolve Your Brain'

The Science of Changing Your Mind

Dr. Joe Dispenza
Author Interview



the end of the five days, brain scans showed that both groups grew the same amount of new brain circuits. How is that possible?

We know that when we think the same thoughts or perform the same actions over and over, we repeatedly stimulate specific networks of neurons in particular areas of our brain. As a result, we build stronger, more enriched connections between these groups of nerve cells. This concept in neuroscience is called Hebbian learning. The idea is simple: *Nerve cells that fire together, wire together.*

According to functional brain scans in this particular experiment, the subjects that mentally rehearsed were so inwardly focused that their brain did not know the difference between the internal and the external world. Thus, they were activating their brain in the same way as if they were actually playing the piano. In fact, their brain circuits strengthened and developed in the same area of the brain as the group that physically practiced.

11. **You say in the book that thinking isn't enough to change our mind, and that change is a process of thinking, doing, and then being. Can you explain how this works?**

The change we want to make has to go beyond thinking and even doing – we need to go all the way to being. If I want to truly *be* a pianist, I will start by acquiring knowledge, which involves thinking. Then I can start to gain experience through mental rehearsal, which again involves thinking. I also have to involve the body in the act of *doing* – physically demonstrating what I've intellectually learned – by playing the piano. But that isn't going far enough. Imagine a concert pianist who does her best work in practice sessions, but struggles during a concert. Or to bring this a little closer to home, imagine a spouse who is the model of understanding on the drive home from work, but devolves into an impatient pouter as soon as he or she comes through the door.

If I want to attain the state of *being* a pianist, my evolved understanding and my skills must become so hardwired and mapped into my brain that I no longer have to consciously think about playing, because my subconscious mind now handles that skill. Now that I am *being* a pianist, any thought I have about playing, or desire to express my feelings through music, will automatically turn my body on to carry out the task of playing the piano. We talk at length in ***Evolve Your Brain*** about how we use different kinds of memory, activating different parts of the brain, to make conscious thoughts, subconscious thoughts. We also learn that to

'Evolve Your Brain'

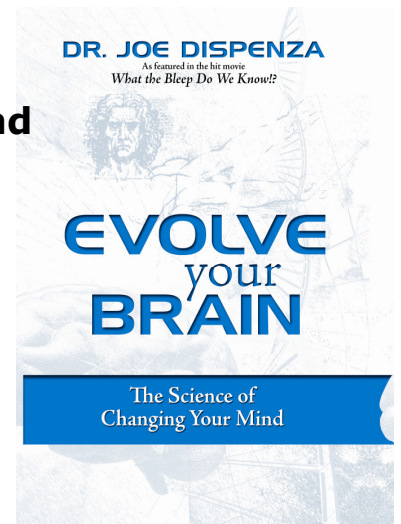
The Science of Changing Your Mind

Dr. Joe Dispenza
Author Interview

master any particular ability also takes possessing a great deal of knowledge about a subject, receiving expert instruction in that area, and having plenty of experiences to provide us with feedback.

We all go from thinking to doing to being, every time we learn a skill so well that we can do it automatically.

Driving is a great example. The beauty of this process is that we can use it to attain any state of being we choose, from being more patient with our children to being healthy to being a happy person.



12. What is evolution and how can we evolve our brain?

We evolve as a species and as individuals. In fact, our own personal evolution also advances the human species. Most of us learned in school that evolution is the slow, linear process by which species survive changes in their environment through adaptation over generations, developing specialized anatomy and physiology that help them to perpetuate their species. Our human brain evolved in a linear fashion up to about 250,000 years ago, when (for reasons that remain a mystery) a sudden, explosive period of growth gave us a neocortex much larger and denser than that of any other species. This so-called new brain is the seat of our conscious awareness; it houses our capacity to learn and to reason, and our free will to create. Simply put, our neocortex, especially the frontal lobe, affords us the potential to transcend the gradual process of evolution and move into rapid, nonlinear evolution. Because we can learn from knowledge and our experiences – above all, from our mistakes – and since we have several specialized forms of memory by which we can remember what we learn, we can immediately modify our thoughts and behavior. Unlike other species, then, we can create a completely new range of experiences in just one lifetime. We may then pass on what we learned to our offspring and to other members of our species.

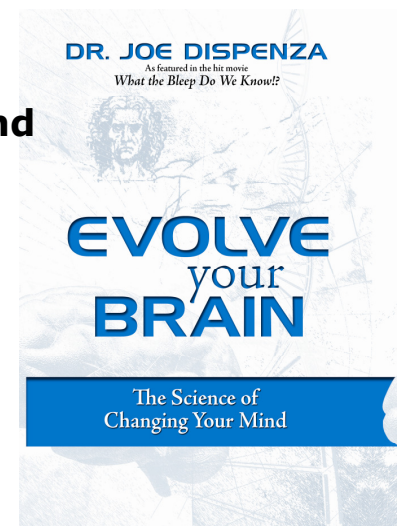
In terms of the brain, evolution means learning, making new synaptic connections, maintaining them, and applying what we learned so we have a new experience, which then is encoded in the brain. What **Evolve Your Brain** presents is a process that can cause the brain to make a quantum leap, by overcoming certain neural circuits that we've been given genetically, and by encoding new experiences and information. When we evolve out of the primitive states of survival hardwired in our brain, fire new thoughts (which make new chemicals), and modify our behavior (to create a whole new experience, thus bringing new chemistry that affects our cells), now we are on the path of evolution.

'Evolve Your Brain'

The Science of Changing Your Mind

Dr. Joe Dispenza
Author Interview

We all have certain habits and propensities that we've either inherited genetically, or that we've been conditioned to by our environment. Personal evolution requires us to break the habit of being ourselves and to become greater than our environment. We break out of our routines and habitual emotional reactions and behaviors by learning new knowledge and having novel experiences. In the early stages of learning, we are faced with novelty. Next follow moments during which we review and internalize the new stimuli, as we begin to make it familiar or known. By the end of every learning process, the newly acquired information is known and familiar; if we have learned a behavior or a task, it may now be routine, even automatic. Our ability to process unknown to known, unfamiliar to familiar, novel to routine is the route to our individual evolution.



13. Are training programs or schools of wisdom necessary to evolving our brain?

In ***Evolve Your Brain***, I outline a simple process of acquiring knowledge, getting instruction, applying what we've learned, and receiving feedback – that's how we evolve our brain. We go from thinking to doing to being. That sequential process allows us to change. I do recommend, and have found it essential in my own experience, that if we want to evolve in the most effective way, we should seek out instruction from someone who has mastered what we want to learn.

There are many excellent individuals, programs, and institutions that can help us learn new information, apply what we have learned, have novel experiences, and begin to modify our behavior. Each individual must decide for themselves whether starting with small changes, or taking huge leaps, is most appropriate for them.