

## Transcript of FBC Foundational Knowledge Audio Lecture 3

Dr. Leonard Matheson

Case Study -

*Hello, this is Marissa.*

*It's my daughter, Penny!*

*She's a junior in high school, 17 years old. She's a great student with a 4.4 grade point average. She takes AP or honors courses every semester and does great!*

*But now she's having panic attacks!*

*Her pediatrician says she's got a panic disorder. They want to put her on anti-anxiety medicine.*

*I just don't want her to get dependent on medication.*

*She's on the debate team and gets so nervous, she vomits before she goes out on stage. She's afraid that she'll have a panic attack on stage in front of everyone and so she's thinking about quitting.*

**Welcome** to a discussion of faithful brain integration, brain disintegration and the importance of homeostasis as the foundation of psychological resilience.

I'm Dr. Leonard Matheson, a neurorehabilitation psychologist and Director of Research at the Faithful Brain Research Foundation.

The integration of your brain with God and with your physical body and with those people around you with whom you're doing life is of crucial importance. Disintegration is what's happening to Penny.

Let's take a closer look at what we mean by this. We need to be comfortable with this topic because your physiology is the foundation of your psychology. Actually it's a reiterative process, your psychology is also the foundation of your physiology, they are intimately integrated. Another way to say this is that to the degree that we do not have a healthy physical life, with proper nutrition and exercise and sleep, it's difficult to maintain emotional resilience. And without emotional resilience, it's hard to have a healthy physical life.

A related idea is that homeostasis requires the smooth orchestration of physiologic and psychological processes and mechanisms based on communication. A good metaphor for this is a symphony orchestra composed of many independent musicians following the same musical score guided by their conductor. Each of the musicians strains to receive the communication of the conductor while simultaneously performing independently within the parameters of the score. If one or another of the instruments or sections becomes disintegrated, the production will suffer.

As we discuss this, it's useful to hyphenate dis-integration so that we can identify it as an unnatural state. We were designed as integrated beings and we get ourselves into trouble whenever we make choices that cause us to lose integration.

Although we don't yet know what's going on with Penny, our working hypothesis is that her symptoms indicate a dis-integration of some sort. As counselors, we work with clients whose integration has been compromised. In order to help our clients get back into smooth orchestration, the various musicians must become reintegrated and become directed by the best conductor available. The clarity and smooth orchestration that is possible within the context of a loving relationship with God, guided by Jesus, is a fundamental goal of faithful brain counseling.

So, as counselors we need to dig a little bit deeper. We need to have a good understanding of what is a *faithful brain*. While of course, the definition is a faithful brain is a brain that is “fully integrated with God within itself and with others, optimizing its design.” It's the brain of a person who accurately reflects the image of God and accepts God's will for his or her life.

The adjective “faithful” emphasizes the integrity that we seek as we attempt to return to our original design. Each of us was born with a different genome based on the experiences of our ancestors and their epigenetic consequences. We have differing gifts and challenges. We are born into families with different gifts and challenges. As we navigate life, we have a general sense of right and wrong that is part of our imprint from God, but the pattern of this world is powerful and we unwittingly give up, or have taken from us, aspects of ourselves that whittle away our potential.

Although it can and does happen at any age, teenagers are especially prone to dis-integration. It may well be that Penny has gotten carried away with her academic prowess. She's gotten so enthused about being a 4.4 student that

she's begun to have an experience of psychological and emotional and spiritual and physical dis-integration. It starts with excitement for her burgeoning competence but then becomes driven by pride, and for a while that's okay but eventually it catches up with her.

Competition in the classroom and on the playing field is great, it promotes the development of competence, but it can be taken too far. Now it's never too late to get reintegrated and reestablish homeostasis, but often it takes a crisis like this to get our attention. And a faithful brain counselor can help people like Penny whose dis-integration has progressed to a point where she's now got dangerous symptoms and on the threshold of adulthood may develop a problem that stays with her for the rest of her life.

And what a faithful brain counselor can bring that a secular counselor just doesn't have available is the context of God and the guidance of Jesus. When we turn back to God, we find that we are designed with potentials that God can use to restore us, but we always have a choice to make. These potentials are only optimally available within the context of a relationship with God that puts us in concert with God's created reality.

There is one best way that we are designed to take, all other ways are no better than second-best. We can choose to seek our best way through prayer and petition to God or we can continue to go our own way. We make these choices many times each day. Clients come to us with confusion and pain and discouragement because each has strayed from his or her God honoring best way. To the degree that we have experiences with finding our own best way, we can be helpful guides and encouragers.

The shorthand for describing the tools that we need to find and stay on our best way through life is described in the phrase "faithful brain". Restoration of the faithful brain must begin by surrendering to and becoming integrated with God in a loving relationship that is made possible by a personal relationship with Jesus. This foundation provides the clarity that we need to become properly reintegrated within ourselves and with others. We do our best to accurately reflect the image of God and make choices that reflect our surrender. With the grace and love of God, we gradually move closer to God's perfect will for our lives, bringing to bear the awesome potential of our brain, that gradually develops our abilities to fulfill God's purpose for each of us.

And there's one more point that I want to make about brain integration. We are designed to be completely and fully integrated beings, with the soul into which we

grow. Our brain develops and operates optimally when integrated with God within itself, with our heart and throughout our body and with other people. The faithful brain model presumes that the physical life must be encapsulated within the spiritual life and both must be integrated.

Must we accomplish one in order to accomplish the other? No. Jesus commands us to love God with all our heart, soul, mind and strength. Jesus did not tell us to get one squared away so that we can pursue the other, we are to do all of them together, simultaneously.

The simultaneity of Jesus' first commandment has an intentional analog, what we call cognitive behavioral therapy or CBT. Thoughts and behaviors that are inconsistent with God's created reality, "sin", cause brain dis-integration. Habitual sin thoughts and behaviors create neural networks that reinforce brain dis-integration and impede homeostasis. Habits such as these impose emotional imbalance.

CBT is an approach to psychotherapy that takes advantage of the integrated design of the brain. Thoughts and feelings and actions are all linked. Doing our best to choose properly leads to improvement throughout our brains. Conversely, choosing poorly leads to degradation throughout our brains. Thoughts and feelings and actions improve or degrade together depending on the choices that we make. Our heart and soul and mind and strength improve or degrade together depending on the choices that we make.

So, let's take a look at the neuroscience of CBT. I believe that God has made CBT available to us as a set of tools that we can use with care and discernment to restore our clients' brain integration. Of course this can be done without reference to God with predictably mediocre results. The faithful brain approach to counseling presumes a God honoring context.

Changing your mind begins with the reception and processing of language which is in the left hemisphere for most people. Because the foundation of counseling is language, it's important to recognize that language integrates our brain fully.

When we're thinking about words, the frontal lobe is involved, when we're seeing words the occipital lobe is involved. Hearing involves the temporal lobe and the frontal lobe and parietal lobe are involved with speaking.

As counselors talk with clients about the client's feelings, the language centers begin to link up with the limbic system beneath the cerebral cortex, the emotional

brain. The linkages between the cerebral cortex and the limbic system are crucial for being able to express ourselves and understand ourselves and each other.

So, the simple act of encouraging clients to use their language to express themselves, especially express their feelings, and to separate out thinking from feelings, that is just a great start on brain integration. We really need to give ourselves credit for the importance of listening and speaking and linking thoughts to feelings that's the basis of counseling.

Of course we do a lot more in counseling, but we really need to give credit to the importance of speaking and listening. Speaking and listening the use of language, engages the brain and engages the full nervous system. We were designed for relationships with communication being the foundation of those relationships.

And so, as we think about the brain integration that's involved with communication, lets ask this question, which is more important, listening or speaking? Many counselors think that speaking is more important but actually from a neuroscientific standpoint, listening is much more important. Listening is crucial to help the client make behavioral change because the communication of the client to himself or herself is most effective in bringing about attitudinal change and that's not the sort of thing that happens when the counselor is speaking.

Now, it's not that what the counselor has to say is not important, it is, but we have to be quite selective about sharing the ideas and the perspectives that we want our clients to consider. Starting with Freud and coming on through with Carl Rogers and Albert Ellis and Fritz Perls and Aaron Beck to motivational interviewing with Bill Miller, it's clear that helping the client listen to himself or herself and understand himself or herself is really what makes the difference. And it's more effective because, when the client is talking to himself or herself, the client is integrating the cerebral cortex, where the language processing systems are, with the limbic system, the source of the person's attitudes that can stop them from growing.

The natural defensiveness and ego protection that takes place when a counselor is talking to the client is not as prevalent when the client is talking to himself or herself. That natural defensiveness, what Miller calls the writing response, is something that we really need to respect, its a key part of how people stop from growing.

And that's what's so great about the context within which we practice faithful brain counseling. Cognitive behavioral therapy is taken within the context of Jesus instructions to love the Lord your God with all your heart, soul, mind and strength and love your neighbor as yourself. It's within that context that the ego defenses can be dropped or at least diminished so that the person is less limbic driven to protect themselves.

And so, I encourage the faithful brain counselor to think about listening as the entry point to brain integration. Brain integration eventually allows us to maintain homeostasis and emotional spiritual and physiological balance. To the degree that we can achieve brain integration, we are more resilient and that's what we're trying to help our clients achieve. To the degree that we lack brain integration we lose resilience and we are more prone to emotional and physical disease.

Jesus, as truly brain integrated was resilient beyond our ability to fully appreciate. Although we can only develop our brains to a shadow of the brain of Jesus, he provides us with the best example. We can use the example of Jesus to develop our values and our character which are represented as dominant neural networks integrating our brains vertically, horizontally and relationally.

So, let's talk in more detail about vertical integration which is where we need to start. Vertical integration starts with God and extends down into the cerebral cortex down through the limbic system and brainstem and spinal cord and into the vagal nervous system, integrating brain with heart and internal organs and synchronizing the autonomic nervous system. And right now, for Penny, it's the autonomic nervous system that's become dis-integrated and imbalanced. It's the source of her panic attacks.

Let's take a closer look at the autonomic nervous system. It's got two components, the sympathetic nervous system that controls our fight or flight or freeze response, and the parasympathetic nervous system that calms us down after the threat has passed. For faithful brain counselors, the low hanging fruit here is the vagal nervous system, a central part of the parasympathetic nervous system that also coordinates the heart and lungs, intestines and other organs. It's low hanging fruit for a faithful brain counselor because it's directly accessed by Personal Prayer Relaxation which we'll talk about in a future lecture.

The key thing to remember about vertical integration is it starts with God through prayer and surrender.

A faithful brain counselor can do a lot of good for a client by beginning with vertical integration. Starting with God to integrate all of the systems that allow the person to calm down, develop their parasympathetic nervous system, deal with her anxiety effectively, improve their sleep. These all begin with surrender and prayer, restoring homeostasis and helping us get back into the designed state of the human brain, experiencing the peace that passes all understanding and the joy that comes when we relax in the love of God.

And so early in the counseling relationship, the faithful brain counselor is going to help Penny appreciate the relationship between her brain and God and her autonomic nervous system. If Penny is open to the idea of the Bible as a legitimate source for guidance in her life, the faithful brain counselor might start with Matthew 22 or Mark 12 or Luke 10 and explore Jesus instructions to love the Lord your God with all your heart, soul, mind and strength and love your neighbor as yourself. Is there some aspect of this that Penny can improve. How is her prayer life? How about praying as she goes to bed and praying to start your day and inviting God into her day as she goes through her day.

That's a great place to start, and then we need to take a look at how her spiritual life is integrated with her brain and her body. Does her spiritual life give her the peace that passes all understanding? Can she relax in the relationship that she has with God? Is there something there that's holding her back? We allow her physiologic response to guide us. Is this effective in helping her calm down? Are there other things that we need to do?

One of the easiest things to do is to help Penny integrate her prayer life with the vagal breathing, fully expanding the lungs using the pulmonary diaphragm to pull down and open the lungs. Taking in a full breath is going to send a signal through her vagal nerve to her brain that she is relaxing. It's going to help stimulate her parasympathetic nervous system. Integrating that type of breathing with her prayer life is going to go long way toward helping her have a sense that she can calm down.

As the faithful brain counselor makes progress with the client in vertical integration, we transition into working on horizontal integration. Each of the cerebral hemispheres is able to be dominant or submissive moment by moment and situation by situation. We function much better when they're integrated, as the perspective and emotion centered in the right brain is integrated with the language and logic of the left brain.

The simplest way to begin to understand horizontal integration, is to compare the right brain with the left brain and to realize that their optimal function requires coordination through the 250 million axons that comprise the corpus callosum. Injuries to either hemisphere of the brain that were studied in the 1800s combined with what's known as split brain research conducted by Roger Sperry and Michael Gazzaniga at the California Institute of Technology in the mid-20th century, demonstrated that each hemisphere of the brain has different capacities. The left brain tends to be linear and proactively plans for the future using logic, compared with the right brain that apprehends the gist of the situation and works from a gestalt pattern completion perspective.

With regard to language, the left brain emphasizes grammar and syntactical rules, while the right brain is involved with the prosody and melody of language. Ongoing research with the split brain models has demonstrated the insufficiency of either hemisphere and the importance of horizontal integration.

One of the simplest ways to invigorate the corpus callosum and improve horizontal integration is through worshipful singing with good music. Penny's brain is going to become fully engaged as she begins to sing and become involved with the music. Deep emotional engagement with worshipful singing can be very therapeutic for a person of faith. It's an important tool for faithful brain counselors to utilize. I routinely encourage my clients to begin listening to worship music and to participate enthusiastically in singing in church.

And then after vertical integration and horizontal integration we have social integration of the brain. Social integration, also sometimes called coronal integration, means that our brain is integrated with other brains in our social contexts. In the past 10 years or so, this has begun to be described as interpersonal neurobiology and the truth is that every brain affects every other brain with which it interacts. Trusting relationships have pervasive protective effects and allow us to become attuned to the brains of others.

The neurobiological models of the brain now necessarily include psychosocial relationships. Interpersonal neurobiology is an important concept for faithful brain counselors, it provides further substantiation of the importance of healthy relationships with our clients. It is through healthy relationships that we use our knowledge and technical expertise to bring about healthy changes in their thinking and their behavior.

And this is where Jesus instructions to "love your neighbor as yourself" is such a crucial addendum to cognitive behavioral therapy that we find in faithful brain

counseling. Most people and teenagers especially, have closed off certain relationships. That closing off of relationships, that all of us have participated in, really limits our ability to fully fit into God's created reality. From subtle and sneaky implicit bias to racial or ethnic or socioeconomic prejudice, all of those limit our social integration, and that limited social integration stops us from really being able to participate fully in God's created reality and be Jesus in skin to others.

And so to wrap up, let me summarize what we've covered. A faithful brain is God integrated. Vertical integration starts with God and then we proceed to horizontal integration within the context of a loving relationship with God. And then we take a look at how the brain is socially integrated, each of our brains is connected to all the other brains of people with whom we interact. And what this brain integration achieves is homeostasis and full availability to God's perfect will for our lives. And for what it's going to achieve for Penny is to help her fit into God's created reality and be the unique person that God has designed her to be.

The faithful brain counselor will use strategies such as Values-based Goaling and Personal Prayer Relaxation and the Healthy Hippocampus Exercise to help Penny develop clarity about her values and her goals and her gifts and how they all do fit in to God's created reality.

So, thank you very much for your time and attention. I'd like to encourage you to come to [www.faithfulbrain.com](http://www.faithfulbrain.com) and take a look at our other resources, there are a lot available.