

## The Neurobehavioral Aspects of Goal Setting

Danny McLane, BA, LMT, CHT

What is it about kinesiology that makes it so effective?

What allows us to be involved in a process that brings about such rapid and long lasting change?

How does it work?

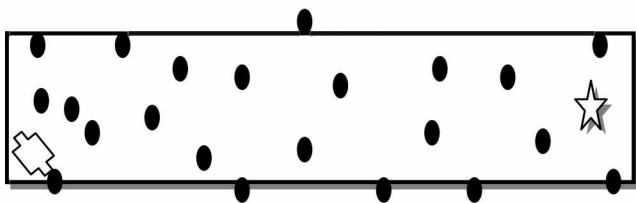
What is the functional component, the spark that makes the machine run?

These are the questions I have asked myself since I started in Touch for Health eight years ago. I have tested and analyzed every part of what we do and, let me tell you my friend, we do a lot of different things. So how is it that so many people doing such different things can all be so effective where others are not? What sets us apart from the rest of the healing community? I know that we like to feel included in the whole of the health care industry, but we all know that there is something special about what we do. So that's where I started my search. First I looked into the muscle test, because it was the most fascinating part of what we do to a new guy on the job. As I did further investigation I found out that the muscles we test and the way we test them are very similar to the gold standard in muscle testing, the method developed by Kendall and Kendall. That method of muscle testing is used by chiropractors, such as George Goodheart, but the application of them is very different than how we use them in kinesiology, the exception being we few who have studied Applied Kinesiology. Orthopedists and physical therapists use similar muscle tests. Do they get the same results we do? No. they get fantastic results and do a very good job, but their time frames about bringing strength back to a muscle are discussed in weeks and months, not seconds or minutes like what we commonly see. Granted, we do use the muscle testing in a different sort of application, but it seems to be more than just how hard you push. So **it has to be something more than just muscle testing.**

Next I spent time with the techniques, and my goodness, there are a lot of techniques that we use. Have you ever been in a session, thinking to yourself, "Man, I could really use a few more choices right now?" And then "invented" a new technique right there on the spot; I know I have. The more I got into the techniques the more I found them to be inconsistent. One time a neurolymphatic point would work and the next time it wouldn't, or I'd run a meridian and see the muscle test go strong, then go back weak, then strong; then it hurt, then it was ok. Just on and on like that. But it did produce better results for the clients than whatever they had ever had before. So that part of it was encouraging. I distinctly remember a presentation from Dr. Charles Krebs in Salt Lake City where he talked about research that showed that techniques are far more effective when applied strategically rather than at random. So **it has to be something more than the techniques we use.**

In conversation with some of my students, we were discussing how each of the techniques in Touch for Health comes from somewhere else, that the book was like an encyclopedia of healing techniques. "Then why do we learn it this way, why not just teach us the techniques and call it good?" one of them asked me, and it was only then that it hit me. It's the method, the synthesis that makes it work. So I looked at the process. What is so unique about the process? The standard procedure in western

medicine is to look at the dysfunctional part, measure it with tests, gage the results as compared to a standard with calculated deviations, then look to the standards of care, and apply the ascribed treatment. What do we do? We start with a status check of the whole person, in the moment in that exact setting, that precise frame of mind. Inclusive of not only what is happening with them but also what has happened to them in the past, and how they are adapting to those stresses. We look at the stimuli as well as the response. And we take it one step further. We also check them in relation to the outcome they want. Do you notice the difference here? We **set goals**. We are able to ask the most difficult and complex questions because we know that the person has all the answers that we or they may ever need to solve their own challenges. And there is the elegance of our system. A very smart man once explained to me what true genius is. He said, "Danny, hitting a target that no one else can hit is talent, hitting the target that no one else can *see* is genius." The point that he was making is a very clear one. In essence, what he was saying is that the distinction between good and great is the ability to know where to focus. The next time you are having doubts about goal setting I would strongly urge you to play a little game. It only has one rule and it is this: win the game. Here is an example of the game:



You may have an idea as to what you should do. You may even think you could win but the chances of winning are less than one in a million, and as far as clinical results are concerned, that would never keep anyone in business. You may think that you need to connect the dots or avoid them and make a line from the X to the star, or is it the other way around? Do you use the dots or avoid them? Or is the way to win to bisect the box into two equal parts

where there are as many dots on one side as the other? See? **There is no way to win the game without knowing the rules, without the goal.**

Why is it so important? For that, we need to get into the brain, more specifically, the neurology. Because all that we do in Kinesiology is centered around the neuronal pool. The central question of Kinesiology is this: Are there enough stimulatory impulses firing on a neuron to overcome the inhibitory impulses and cause the principle neuron to depolarize and fire, thus causing an action potential?

To further elaborate on the topic I'll include some basic neurology:

- A neuron is the smallest functioning part of the nervous system.
  - It has a body like other cells.
  - It has an axon that connects to other cells and transmits nerve impulses.
  - It has dendrites that receive nerve impulses from other cells.
- A nerve is the collection of axons that travel to a target tissue.
- A nerve impulse (action potential) is the chemical chain reaction that causes information to pass from the cell body, down the axon, to the target tissue.
- A nerve firing is a release of chemical substance at the end of an axon to a target tissue.
- Temporal summation is when one nerve cell fires upon another with great enough frequency to cause that nerve cell to send an impulse.
- Spatial summation is when many nerve cells fire upon a singular nerve cell with enough intensity to cause that nerve cell to send an impulse; can be positive or negative.
- Neuronal pool is the sum total effect that stimulatory impulses and inhibitory impulses have on the overall nervous system.

These neurons are functional parts of how we think, feel, move and function as people. Many people talk

about the mind-body connection, but really it's all just neurons. Look at our language, we use the word "feel" for emotions and sensations the same. We feel our emotions in our body. So as we approach the topic of goal setting we need to keep in mind that **the mind-body system is one unit**. What we are really measuring is the effects of stimuli on the neurology of our clients. We are, in essence, doing neurobehavioral studies in a very rapid and natural manner.

There are three very fascinating topics that I'd like to bring up to show you the elegance of how the brain works, how the brain processes information. The source for this information is from the BBC series called the *Reith Lectures*. They were recordings of a very accomplished neuroscientist by the name of Vilayanur Ramachandran, who is the Director of the Centre for Brain and Cognition at the University of California (San Diego). I'll present to you a small piece of a great lecture series that really does a fantastic job of illustrating the way our brain works.

Lions and Leaves: The first concept is one that most of us have had experience with. When you are looking at an object and your view is partially obscured by something, you can still tell what that item is. **Your mind fills in the blanks**. In fact there is a physiologic blind spot that every person has in both eyes, yet when you close one eye, you have a smooth full field of vision from that eye. Your brain fills in the blank spot. This is said to be an adaptation from long ago. Imagine sitting in a tree and through the leaves you see a bunch of yellow spots that are all close together. And if you were to connect the outline of those dots it would give you the shape of a lion. Thankfully our genius brain figured out that the most likely cause for there to be a bunch of dots shaped like a lion was that it was in fact a lion. Even though the leaves blocked out some information our brain was able to fill in the gaps. As it turns out it takes a bit more work from our brain to put the pieces together and that task is very stimulat-

ing to our neurology. **This shows the brain has the ability to compensate for informational deletions.**

Rats and Rectangles: There were experiments done with conditioning rats to prefer rectangles over squares. The rats were given two options: a rectangle with the reward of food, or a square with no reward. So they soon learned that the rectangle was rewarding. Then a new shape was introduced – a longer thinner rectangle. Classic conditioning would predict that the rats prefer the shape they were conditioned to over any other shape. However this is not the case. As it turns out, they prefer the more "rectangular" rectangle. It's not the shape they prefer; it's the idea of rectangularity. **The thought is much more functional than the object for stimulating a reaction**. It's the concept that is the most important part of any experience. **This research shows that the brain has the tendency to generalize information.**

Birds and Beaks: Niko Tinbergen did experiments with herring-gull chicks over 50 years ago. He was studying the behavior that they display as soon they hatch from their shell. As soon as they hatch they peck at the red spot on the mother's yellow beak so that she shares her food with them. Now since they are newly hatched and have never seen their mother, Tinbergen's interest was how they knew what their mother looked like. What his research showed was that they reacted to a beak without a bird attached the same way as if it was on a live bird, so it's not the mother they are hard wired to like, it's the beak. Or so it would seem. Tinbergen took it one step further. He took a long stick and painted it yellow and put three red stripes on it. And here's the interesting part: the chicks preferred it to the real beak so much that when presented with both options they pecked the stick and not the beak. It stands to reason that somewhere in their brains is a short cut that says, "Look for the 'beakie-ist' looking thing you can find." As it turns out, a 'beak' in their tiny new born bird instincts is defined by red contours. As you

might imagine this fact was a bit of a surprise, to find that an abstraction of a real thing was more stimulating on the deepest level, than the actual thing. **This shows that the brain has the propensity toward informational distortions.**

So here are three stories from neurobehavioral research that show how the brain has the tendency toward cognitive deficits that naturally occurs as stress builds up in the system. It's important to understand the natural functions of the brain because when we see it break down, sometimes we think that there is a major flaw of the system or a major breakdown within the system. But what we are really seeing is the dissolution of the elegant orchestra of individual parts playing in harmony with each other. **As the cognitive process breaks down, it does so in parts.**

This becomes extremely relevant when we get down to the matter of working on the cause rather than chasing symptoms. A guiding principal that is foundational is that **the brain, as an organ made up of neurons, protects itself from over stimulation.** If neurons are stimulated too much, they die. The research that was done on aspartame showed it to be dangerous as a neurotoxin in high concentration, specifically an excitotoxin, meaning that it excites a nerve to death, the same way that the hallucinogen "acid" kills brain cells. Conversely, if neurons are stimulated too little, they die. This was found out in laboratory studies of cultured neurons. Neurons were cultured in a dish and it was found that they naturally group together to stimulate each other. And if a single neuron is separated from the others, it loops back on itself for stimulation. In one experiment the researchers blocked a single nerve from looping back on itself, and it died. All of this is an exemplary way to demonstrate the concept that **an "all on" or "all off" nervous system cannot exist.** Instead it selectively turns up or down function - basic homeostasis.

With all these alterations, what we can readily observe is distortions related to the cognitive process.

It shows up as abnormal behavior that seems to follow a logical pattern but is inconsistent. To find the reason for this we can look at our own biology. Starling's law is a law of neurology that states that when a neuron fires, it fires and it's all or nothing. There is no partial firing with individual nerves. So how are there gradations of nerve impulses in a system that only has individual components that produce 100% or zero? It is the elegance of the neuronal pool. It allows for a system that is a lot like voting. Each nerve that sends an impulse can send a positive signal to promote an impulse or a negative signal to demote an impulse. Each neuron sends as many signals as are called for by the stimuli that are provoking it. This may be many or none at all. And the net effect of the average of all neuronal activity determines whether or not the nerve fires. This becomes very important in a little while, but first let's delve into neurons a little more.

In the study of cell biology we are shown that the internal mechanisms of a cell are almost solely focused on responding to the environment. The way that every cell in our body responds to the environment is through receptors on its surface. We are no different. We have specialized receptors for light, sound, taste, smell, movement, pressure, balance, vibration, heat, cold, and damage to tissue. It is through this immense network of highly coordinated nerves that we know our external world. It is this input that allows us to *create* an adaptation.

There is a second network of fibers that are responsible for *maintaining* an adaptation to the environment, a system that is entirely responsible for our learning and adapting new ideas, thoughts, feelings and concepts. It is also responsible for making sure that we retain some amount of our previous experience even when faced with new ideas. It maintains a reference point, so that we never change too rapidly and shock the delicate balance of the system.

The main difference between these two systems is the way they are utilized. And this is the tale of two

brains. The one brain uses the surface senses; the other brain uses the internal senses.

All nerves operate by ions moving across the cell wall through little channels. The surface senses, like sight and touch, are only active when there is new input in to the receptors. These nerves only send an impulse when they are stimulated by an outside force. In surface senses, these channels are normally closed, and require an external force to open. Once they open, the nerve impulse fires, then they reset. This can be illustrated by the idea of a remote control. Push a button, get a response, stop pushing the button, the response stops as well.

The internal senses like memory and time are regulated by a nerve with a different type of channel. The internal senses are regulated by nerves that have leaky channels, so they leak ions through the cell wall, and once enough ions have passed through the nerve impulse fires, then the nerve resets and the process starts over again. It's a loop that replays over and over again. This can be illustrated by the idea of a thermostat. The furnace heats the air in the house, the temperature rises to the set point, the furnace shuts off. The heat leaks out into the surrounding air until the temperature falls to a minimum set point and kicks the furnace on again. You can see how this part gets complex. Remember, it's as easy as plus and minus.

By understanding each of these systems individually we can move towards an understanding of how they work together. If we had just the surface senses we would remember nothing; we would literally never retain a habit and never show any long term adaptation to the environment. It would be strictly a moment by moment reflex to whatever the current stimulus was at that time. Conversely, if we had only internal sense we would have no reality to process. There would be no new information to integrate into the loop. We would be completely unresponsive to our environment. You may already see the slightest correlations to normal human behavior

in cases of high stress. The term "fight or flight" applies to a person's innate response to a threat.

A person will either lash out to try and minimize the threat or they will retreat to remove themselves from the dangerous situation. You may notice that in fighting, the external senses go into overdrive, often times ignoring thoughts of past or future consequences. And in fleeing, you may notice that the internal senses become dominant, causing the person to retreat into the depths of their own internal world and completely block out what the surface senses detect. During natural daily life, when stress is low, our two sets of senses coordinate so smoothly and seamlessly that we only notice harmony. This balance point is where we are most effective in our thoughts and actions. We consider new information with regard for previous knowledge. In traditional Chinese medicine this is explained with the concept of yin and yang, the balance between the internal and external. So in a practical understanding, we come to realize that there are some feelings that are so intense, the system blocks them out. It's better to blow a fuse than to lose the whole circuit. Here's another interesting side note. Each brain cell directly connects with thousands of other nerve cells, and serves to regulate all of them in some capacity at some point. This is the concept of the neuronal pool in action. So, losing brain cells has a cumulative effect.

Under stress, it's a known neurological phenomenon that one system may remain intact while the other has been changed by trauma or chronic insult over time. I'll provide two examples:

The first is of a woman. She has impeccable skills of perception. She notices everything right down to the last detail. She even recognizes aspects of a situation that most people do not. She is a fact finder and her surface senses are keen. However, her internal senses are skewed. She has individual data points correct. But when it comes to applying meaning to them, to extrapolating the net result of those data,

she ends up far off the mark. Her internal senses are not in tune with what reality states to be true. She has a faulty map of reality. She can't reason her way through a problem because of her inaccurate processing of true information. She has "mental" complications.

The second example is of a man. He is brilliant and can process information to the highest degree. He can derive meaning from chaotic and seemingly senseless data. He can sift and sort through a slurry of random information and draw several logically sound conclusions. He cannot, however, perceive the truth of the events happening around him. When he is presented with true information he can run it through his process with astoundingly accurate results. But when he is left on his own to collect data from the outside world, he is lost. His surface senses are in need of calibration, he misrepresents what is actual. So in effect he is incapable of reasoning his way through a problem because of his accurate processing of false information. He has "emotional" complications.

In both examples the end result is the same, but a correction for each would have to be very different. It is only with proper respect of the goal setting process that we can find these break downs and offer correction.

With all these facts, neurology seems complex. It is. The good news is that we, as people, are very easy to understand. Here is a good moment to elaborate on the difference between complexity and difficulty. Complexity describes how many factors or steps there are to consider. Difficulty describes the level of effort or skill that performing a particular task requires. That is to say that something that is very complex can be easy, like tying your shoes. Conversely something can be very simple but difficult, like kissing a crocodile. The action is simple, pucker lips, press to crocodile. But there are feelings that make it difficult. During a goal setting session it is imperative to distinguish if someone is having prob-

lems overcoming complexity (mental) or difficulty (emotional). Here's a little story for you:

An organic chemistry teacher I had was a very tightly wound individual with little room for laziness. He was an old-school, battle-hardened marathon runner with more than 35 marathons to his credit. His tests and lectures were exemplary of his unforgiving dedication to endurance. One night at around eight p.m. after two hours of organic chemistry down and another two to go, our class was starting to fade. We asked him to review one of the topics he explained just before a short break we had. He, in all his kindness said, "It's as easy as plus or minus, what's there not to get?" We all sat there trying to apply that principle to see which way the chemical reaction would go, gazing woefully at the cluster of symbols chalked out on the board. That night I learned a little chemistry, very little. But what I retained from that was a maxim that governs the very properties of the substance of the universe: **It's as easy as plus or minus.** I went on to study behavioral science with this principal lodged in the back of my mind, churning and grinding against all the other thoughts that had been thrown in there like crude stones in a rock tumbler. So as we work with people on their reaction to stimuli, we need to understand the factors that make a situation more or less stimulating.

Now, since we have investigated the processing and perception of information, let's move on to the qualities of stimuli that we respond to. These qualities have been broken down into 10 categories for ease of understanding. These are the elemental components that make up each stimulus and determine the response. Each of these qualities will have a stimulatory or inhibitory effect, depending on context. **And in the world of neurons, it's all or nothing.** There is either enough stimuli to elicit a response or there is not. To show a physical example:

One of my good friends is a personal trainer. He and I often joke around about how much weight we can

lift. In the process I said to him, “I can almost bench press 350 pounds 5 times.” He asked me, “You almost lift the weight or you can lift it almost 5 times?” He called me out because he knew I was joking with him, he knew I wasn’t quite up to 350 yet but I could do a lesser weight at 5 repetitions. So that goes to show that either a nerve impulse happens or it doesn’t.

The following is the list of 10 qualities of a stimulus that can make it more or less stimulating to a person. Included is a description of each.

**1. Novelty:** This is the quality of being unknown to a person. It causes much more neuronal activity due to the fact that parts of the brain must really work to define it in terms of what it already knows. This causes the brain to fill in gaps with assumptions.

**2. Intimacy:** This is the quality of connectedness. It causes us to *feel* about a stimulus. It is defined by our relationship to factors in the stimulus. It is the level of involvement in our life a stimulus has. It also determines how much of our life is effected by a stimulus.

**3. Perception (+/-):** This is the quality of evaluation by a person. This is where we assert our value system on the stimulus. We filter the actual reality based on what we expect or want to happen. Many times the frame of reference is built by experiences we have before the age of seven. This also where our feelings have the greatest impact on our experience. As it turns out the least impactful a stimulus can be is not positive or negative, it’s neutral. The old saying, “The opposite of love is not hate, it’s apathy,” broken down looks like this, “The opposite of strong (+) feeling is not strong (-) feeling, it’s no feeling at all.”

**4. Relativity:** This is the quality of relationship to other stimuli. It causes the brain to formulate associations to a particular event. These associations may be intentional or unintentional. They may be sensible or insensible. This is the tendency of the brain to create patterns and chains of events. It is also how we establish priority between events.

**5. Chronology:** This is the quality of the sequence of events. It is how we organize events in relation to each other in time. Chronology also leads us to assume causality, what event caused another. Most often, we assume that because two stimuli are related in time that they are related in cause as well. This is partly because neurons that fire together, wire together. This quality is the other half of how we form patterns and associations, along with the quality of relativity. There is also an element of time required to adapt to a stimulus. If the interval between occurrences of the stimulus is shorter than the time required to adapt, the stimulus overwhelms the neurology.

**6. Expectation:** This is the quality of preparedness. It comes from previous stimuli, from other instances where we have had experience with a similar stimulus. This activates the feed-forward mechanism in the brain that activates the imagination to create a sequence of expected events. When something matches these expectations it is less stimulating than it would be if it was a mismatch for our expectation. Sometimes this is referred to as a frame shift, when the chain of logic is broken and an unexpected idea replaces a more expected one. Expectation is different than novelty because it deals with pattern and sequence rather than initial exposure.

**7. Intensity:** This is the quality of amplitude of stimulation. It causes mental resources to be allocated to the event. The greater the intensity the more focus the brain will devote to the event. Some events have such small intensity that a person may not even notice their occurrence at all. Some stimuli have such a great intensity it causes the neurology to protect itself by selectively shutting off certain circuits.

**8. Frequency:** This is the quality of the time between occurrences of the same event. This is where we are able to adjust to events as they occur, or not. If the frequency of a stimulus is at a consistent, predictable rate then it becomes less stimulating. However, the *anticipation* of the event becomes more stimulating due to the role that expectation plays. If

the frequency is intermittent and at random intervals the *stimulus* becomes more profound.

**9. Duration:** This is the quality of experiencing an event over a period of time. This quality relates to the time component of endurance. It is the time involved in the active phase of a stimulus. This time can be related to a single stimulus or the continuation of a recurring stimulus over time. The longer the duration of stimulus the more impact that it has. This quality is factored in combination with intensity when determining the effect of a stimulus. The effect of duration can be seen in General Adaptive Syndrome with three distinct phases: Alarm (where the system fights or flees), Resistance (where the system adapts) and Exhaustion (where the system fails to adapt).

**10. Impact:** This is the quality of outcome. This is the amount of change that occurs as a result of an event. This determines the amount of adaptation the brain must undergo to remain effective at solving problems. If there is little impact on one's life then the stimulus is far less stimulating than if there was a long-lasting, pervasive impact.

Now that we have determined how to intentionally alter stimuli, let's explore a few examples. The first example is a funny comment I said to my friend when he asked me why he and I were friends. It went a little like this: "Well, you remember that one time a long time ago, when we did that thing that you do with all your friends and figured we'd do it as well, that was kind of unimportant and nothing ever happened because of it? Yeah, neither do I." Basically it is the sum total of all the least stimulating qualities of an event. That's a very vague example, so let's get in to some specifics.

Another friend of mine recently asked me how to impress a girl he just started dating, based on the fact that I "get how women think," as he put it. I said to him, "It's as easy as plus or minus," then smiled. Then I laid it all out for him. The first step is to know a bit about her past experiences, pitfalls to avoid (minimize negative perception), find out what

things she has never experienced (find sources of novelty), ask her what she likes (to guide experiences together that are relative to positive perception), and ask her about what her expectations for a boyfriend are (find ways to surprise her). When you have those details, mind them closely. Then he was to involve himself in ideas (Remember, the thought is not the thing or the action, it's the *thought* that counts.) that are directly related to what she likes, in a positive way on a frequent basis, consistently over a period of time, in ways that she would not expect and that leave a token or reminder behind and improve the quality of her life, even if just in small ways. I know it was a lot of information all at once, I could tell by the glazed-over look he gave me. I said, "Take out a sheet of paper and I'll run that by you again."

But really, what did I tell him? I told him how to stimulate her neurology, how to get and keep her attention. I told him how to be worth her time and attention. You see, I did for him what every guy wishes he had for the girl of his dreams; he has a specific method for expressing his feelings. He still needs to see it through; it won't work unless he really puts himself to task on it. But if she is the one he really likes, then it's a labor of love and a good way to get to know someone.

You see, **people make decisions out of rational self-interest**. Every decision ever made by a brain at any point in time has been the best decision that brain could have made at that time with the information available and values in place at the time. It is the way the brain is wired. You cannot make the second best decision. You cannot choose the inferior option. Your brain prohibits that decision and prohibits that option. If you look back in your life and find a disagreement with a decision that you made, you are really saying that your value statements have changed since that time. It's imperative to understand this concept because it absolves guilt and suspends judgment, thus allowing the creative process



to focus the goal setting process to the most appropriate goal.

The way the decision making process functions is fairly complex. However, this is where we see the concept of plus and minus shine through brilliantly. The study of economics uses a model that allows all the attributes of each option to be considered when making a decision. It's called a cost benefit analysis. Below is a simple version where three options for travel are being compared on three criteria. Keep in mind that this model accommodates very complex decisions with many options each with many criteria.

Travel to the conference			
	Flying	Driving	Train
Cost	- - - - -	-	- - -
Speed	+ + + + +	+ +	+ + +
Comfort	+	+ + +	+ +
totals	0	+4	+3

As we can see, as demonstrated by the simple number totals at the bottom and based on how I value each criteria, driving is the best option for me. There is a far more complex method of this that takes into consideration the value structure of the individual by weighting the criteria to make them more or less important than each other. That example is beyond the scope of this paper. But this shows us how people actually process information. Lucky for us we have a tool that is much faster at finding priority of one option as compared to another. But it's still very valuable to dissect each option in a complex decision-making process to very thoroughly understand the way a person places values on each criteria, or perceptive gaps in their thinking process. This gives us the ability to drill way down into the individual criteria for making a decision.

Now let's review. There are many ways that the mind-body system breaks down. By being aware of this we can make sure to factor out these breakdowns in communication. Setting goals is all about

asking the right question. This new way of investigating the topic allows for maximum impact with minimum effort.

Crafting the neuronal pool is, I think, the part where all the prior facts become relevant. When we set goals, we have the ability to increase or decrease the overall status of the neuronal pool. When we set a goal and do muscle testing we see a varied pattern of muscle imbalances. We note that every goal has a different pattern of muscle imbalance and corrective preferences. So I took it another step forward because I wanted to find out what would happen when I layered multiple goals on top of each other in a stack. The result was pretty intense. As you may imagine, some of the muscle imbalances canceled each other out, while some others were magnified. We see this same effect in nature, with wave forms. I also did a multi-surrogate stack where one person was the surrogate for three others at the same time. I would recommend against this procedure, as it can be taxing and overwhelming for the person on the table.

This outcome intrigued me, because if setting goals only brought up the negative aspects of a situation, then the effects would be additional, not interferential (meaning that they have positive and negative effects on each other). So with this concept I decided to see if I could distill out the positive aspects and leave only the negative aspects of the goal that have a stressful impact on the person. To do this I needed a way to measure progress in relation to goal. I really liked the model that Dr. John Thie and Matthew Thie used, but I wanted it to be a little simpler; I used the 100% scale instead of the 0-1000. Then with the tools of a kinesiologist at my disposal, I went to work. I set a goal, measured the person's relation to that goal and then started finding ways to make the dis-relationship greater. I started by telling the person to focus on all the hard stuff to think about and to use their imagination to really let it run wild, to exaggerate the negative aspects of the scene; also to do the opposite with the good thoughts and

feelings: tune them out, turn them down. I told them to also remember all the past times that there was anything like this that happened to them, and push it out in to the future too. What happened? It worked! I saw at least a 25%-40% decrease in relationship to goal. What does that mean? More on that in a moment . . .

I did the same investigation with hand modes. I used the hand modes to bring up and include all the stressful aspects of the goal and factor out all the helpful ones. At first I thought, “Wow, this is really cruel, making these people suffer the worst part of a frustration and taking away the sense of comfort.” But then I thought about the SAID principal. SAID stands for Specific Adaptation to Implied Demand, and basically says that people live up to the expectations placed on them by their environment. This principal holds true in weight lifting as well as behavioral repatterning, both activities that, like kine-  
 nology, are very neurologically demanding. So by putting someone at a deficit to start a balance, and then using the balance to adapt their neurology to be able to cope with the stress with no other resources, what we essentially did was to give them a greater range to improve within. That way, once all their comforts were restored they would be far more able to deal with the stress than would ever be really needed. In essence, we helped them develop a solution that would overcome any level of challenge that

they would be faced with. Clinically this means needing to fix a problem only once. So each balance we do is for a different goal.

I know I have covered a vast array of topics and it is my hope that I have shown that there is method and merit to being specific with goals and the goal setting process. What I would like to include for you and for the benefit of your clients are a few resources that you can take with you and use at your discretion as you integrate this and all other sorts of great information into your life. One such resource is the four box model, sometimes called a Punnett square. This model is used in biology for all types of comparative analytics, but mostly in genetics where the goal is to predict the outcome of offspring and what characteristics they will have. I have repurposed this model to further simplify the relationship of one idea to another. You see, there are two sets of neurology working at once in our system. We have two areas of perception in relation to our world. We have *self* and *non-self*. We also have two areas of impact that we recognize, also *self* and *non-self*. To make it easier to understand I have labeled *self* as “internal” and *non-self* as “external,” and stimulus and response can play out in any combination of these areas. The model looks like this:

Basic Concept of Stimulus / Response		
Context / Stimulus	Content / Response	
	External	Internal
External	external external	internal external
Internal	external internal	internal internal

The idea is that the source of the stimulus can be either internal or external and the target of the response can be internal or external. This in and of itself is a very valuable bit of information to sift out 75% of the unnecessary aspect of the goal. By find-

ing the specific cause and effect, the relationship becomes clear and much more real to the client; this in turn has a more profound effect on the outcome of the balance. The following are a few examples from life that show the relationships of common topics:

#### Four Levels of Consciousness

<i>Context / Stimulus</i>	<i>Content / Response</i>	
	<b>External</b>	<b>Internal</b>
<b>External</b>	conscious knowing	unconscious knowing
<b>Internal</b>	conscious unknowing	unconscious unknowing

#### Four Box Model of Ethics

<i>Context / Stimulus</i>	<i>Content / Response</i>	
	<b>External</b>	<b>Internal</b>
<b>External</b>	Define situation	Select principals
<b>Internal</b>	Choose loyalties	Identify values

#### TSI Four Box Model

<i>Context / Stimulus</i>	<i>Content / Response</i>	
	<b>External</b>	<b>Internal</b>
<b>External</b>	Behaviorist	Structuralist
<b>Internal</b>	Functionalist	Humanist

TSI is the abbreviation for Training Style Inventory. It is how people who teach tend to approach the training process. Usually the preferred style is

related to the most significant experience in their life. Most often it is this area that is in greatest need of healing.

Kolb LSI Four Box Model

<i>Context / Stimulus</i>	<i>Content / Response</i>	
	<b>External</b>	<b>Internal</b>
<b>External</b>	Doing	Reflecting
<b>Internal</b>	Experiencing	Thinking

Emotional Intelligence

<i>Context / Stimulus</i>	<i>Content / Response</i>	
	<b>External</b>	<b>Internal</b>
<b>External</b>	Social Skills	Social Awareness
<b>Internal</b>	Self-Management	Self-Awareness

Barriers to Communication

<i>Context / Stimulus</i>	<i>Content / Response</i>	
	<b>External</b>	<b>Internal</b>
<b>External</b>	Culture	Filtering
<b>Internal</b>	Body Language	Judging

Steps to Success

<i>Context / Stimulus</i>	<i>Content / Response</i>	
	<b>External</b>	<b>Internal</b>
<b>External</b>	(4) Acceptance	(3) Reward
<b>Internal</b>	(2) Experimentation	(1) Curiosity

Steps to Failure

<i>Context / Stimulus</i>	<i>Content / Response</i>	
	<b>External</b>	<b>Internal</b>
<b>External</b>	(4) Rejection	(3) Punishment
<b>Internal</b>	(2) Hesitation	(1) Doubt

Selling

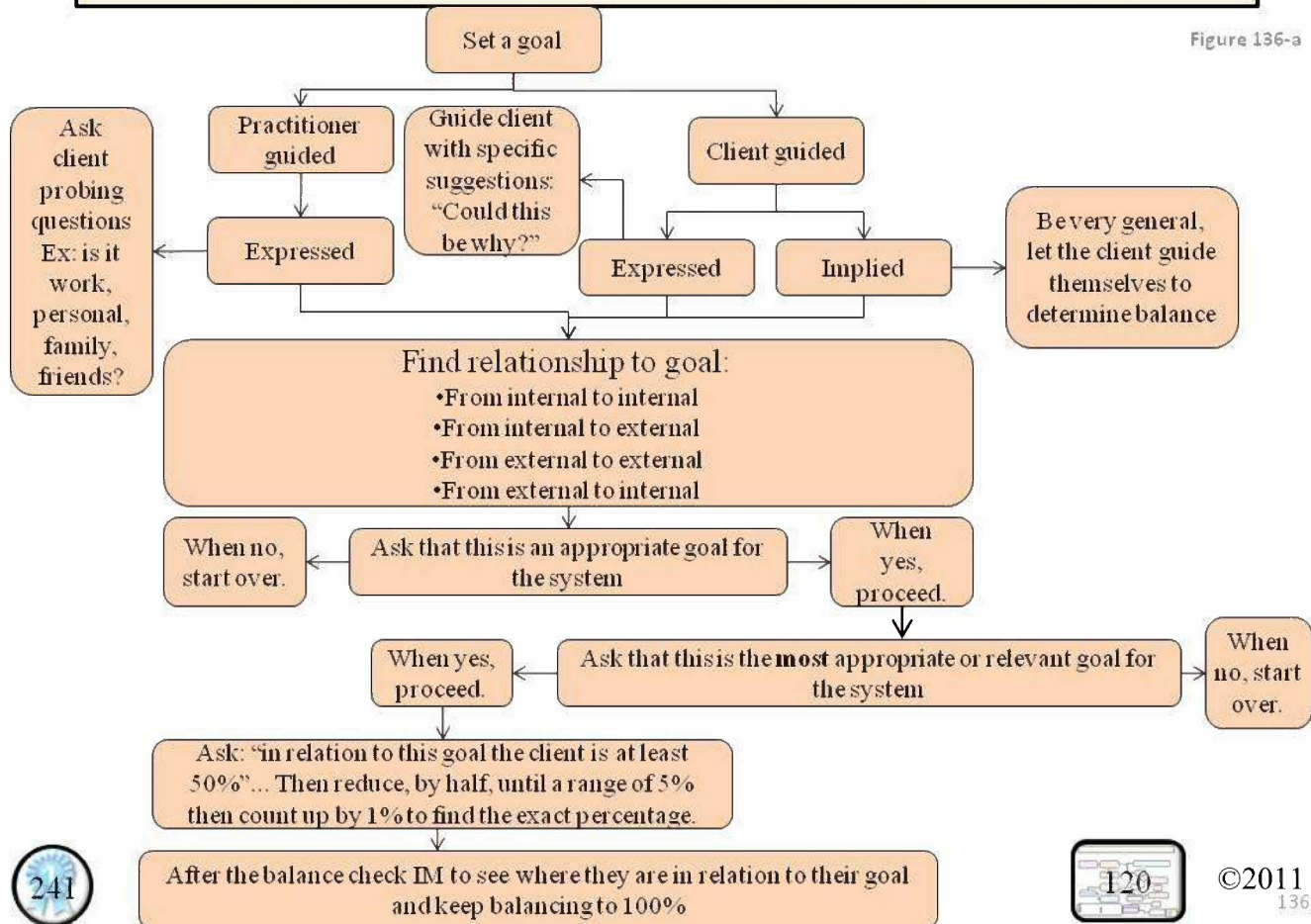
<i>Context / Stimulus</i>	<i>Content / Response</i>	
	<b>External</b>	<b>Internal</b>
<b>External</b>	Reputation	Credentials
<b>Internal</b>	Performance	Philosophy

It is my intention that by showing some examples as well as explaining the basis for the model that you will be able to follow the pattern. This will help get

you started in the investigation of the four quadrants of an experience. This is one piece of a larger goal setting process that I have included below.

## Goal Statements + Measure Flow Chart

Figure 136-a





**Danny McLane**, a past member of the TFH Board of Directors, is a TFH Instructor, Licensed Massage Therapist, Hypnotherapist (CHT), Master Practitioner (CM, NLP), Reiki Master, and an Instructor of B.E.S.T. Self-Help. Danny has applied himself diligently to advance the integration of P.E.R.K. Massage, of which he is the creator, with Oriental concepts and Craniosacral Therapy. The co-author of the P.E.R.K. manual, he is also a P.E.R.K. instructor. After completing his BA in Applied Behavioral Science, Danny is currently moving into his Doctorate of Chiropractic at

Palmer College of Chiropractic in Davenport, IA and tending to his duties as Research Coordinator IHI. Given his vast background, Danny is able to offer a unique and memorable perspective on the Kinesiology process. For more information, email [DannyMcLane@gmail.com](mailto:DannyMcLane@gmail.com) or call or text 847.668.2005.