

To Live Whole

Pedagogy of Empowerment
Human Compatible Teaching – Teaching for
Learning - an Introduction

Babette Lightner

DRAFT 2008

Do not reproduce or distribute without
permission from Babette Lightner

Draft - © Babette Lightner 2008 , All rights reservedworldwide.

“Anatomy of Wholeness is a trademark of David Gorman. The names:”LearningMethods” along with respective logos are trademarks of David Gorman and are used with permission.

babette@lightnermethod.com www.lightnermethod.com

Introduction

This writing stands on the work of two extraordinary human beings, Leon Thurman and David Gorman. Leon has influenced a generation of music teachers to teach effectively and with kindness. He researched and gathered reams of scientific research to support the power of teaching in a “Human Compatible” way. David has opened the window into an entirely new paradigm for understand human functioning. When his insights are finally discovered by a majority of people the way humans go about teaching and living will be utterly transformed. I have had the privilege of working with these two brilliant, open minded, insatiably curious men of integrity, kindness and generosity. This writing is my attempt to both bring together these deeply complementary approaches and make accessible this material in a practical and immediately usable form.

Human Compatible Teaching

Human Compatible teaching is based on three simple principles.

1. The Teaching approach is aligned with the way human's work. Our understanding of how we work is an ongoing process.
2. The teacher is open to updating his or her understanding of the way humans work as new information/research/interpretation arises.
3. Our current point of view (POV) or belief about how we work determines our strategies. We attempt to make that POV transparent in our teaching.

Aligning teaching strategies to the way we human's function seems to me the peak of logic and common sense.

The Story:

Recently I was at a friend's house and someone asked me to open a bottle of wine. I found a wine opener I had never seen before. I tried putting the silver flip tip on the edge of the bottle, into the cork. It wasn't long before I was in a wrestling match with the bottle and the opener. Then my friend arrived took the opener and gently set it up and the cork just floated out of the bottle. Given a few more minutes on my own that cork would have been pushed into the bottle or my hand cut or the bottle chipped. There was nothing wrong with the opener or the cork or me in fact. I just didn't know how the opener worked to do what it was designed to do.

Many of us know more about our wine openers, our cars, the tools we use than we do about the nature of our human system. *Teaching a skill (living our lives) is easier when we approach our students or ourselves with some knowledge about how we operate. The closer our strategies match our functioning the more effective, simple and useful they will be.* Conversely, when we teach or operate against the way we work we experience symptoms, effort, and are often prone to injury, (physically or emotionally).

I am not suggesting there is a finite amount of knowledge to be acquired about such an extraordinary system as a living system. But the more open and curious we remain to continually observe, discover and question the principles that underlie our functioning the more we will acquire knowledge that will support optimal work.

This open interest is a key component of Human Compatible teaching. I have seen fabulous teachers make a discovery about the human system and turn it into a truth or dogma that becomes a prison. When new and more accurate information is presented to such teachers they can't hear it, let alone allow it to update their approach.

Updating a current idea can be challenging. I understand this first hand. I had invested many years, many dollars and a professional reputation into a particular idea about how the human system works. When I was presented with new and more accurate information I was stunned. I felt many feelings at once. First I felt relief that many of my obstacles were explained by this new understanding. I also had some sense of shame about all those lessons I'd taught that weren't informed by this material. I had a wisp of rage "Why hadn't anyone told me this before?" Fear followed: "What will I do now?"

In a very real way this new information threatened the work I had been doing. BUT when I stepped back to see the bigger picture it wasn't a threat at all. When it came down to my real purpose for teaching the new work wasn't a threat, it was liberation in the truest sense of the word. I would be liberated from a less accurate point of view. I would then be working with more accurate information and likely be more useful and effective with my students. The new information only threatened the *old approach*. I didn't want to be defending an approach if it wasn't doing what I wanted, (helping students in the most efficient way). But if we tie our approach to our identity it can be terrifying to change. Yet if we do change because we are being true to our ultimate goal, to help our students, then in fact we are not only working better we are modeling the ability to be learners ourselves, which may just be an even greater gift to our students than any direct teaching.

A Question for you:

If you are a teacher or practitioner of a skill I ask you to take a moment to think about what you do and why you do it. Are you committed to a particular approach, method, or technique? If so what was your initial motivation for learning that particular approach? What is your purpose for doing what you do??

These questions lead me to a word of caution for anyone who is committed to a particular method. Is it the method that is so important or is the goal the method was created to bring about what is important? Can you periodically put your method up for question to really see how effective it is at addressing your primary purpose?

In the method in which I was trained many people would say some version of "the method is fine. I just don't know how to do it yet"; this came from people who had been involved with it for years. Methods have a way of trying to prove themselves right and becoming a goal in and of themselves. We often end up wanting to be good at the method rather than being good at helping another person ski or sing or heal or move easily.

If you are a method person please take a moment to be really clear of the purpose that underlies your particular method. With that clarity you will be able to take in the material I present and assess it against a true criteria. Does this material help you help another person do something vs. this isn't right according to the method I already know.

I use _____ approach in order to _____.

The trap of losing sight of the deeper purpose when we become enchanted with a method is why I don't present a method. This work presents principles and an understanding about human functioning. You as the teacher can continually find methods and tools that help you help your students do what they want to do. The teaching becomes student centered not method centered. Each particular student will help determine the strategy you employ.

The latter chapters of this handbook will go into great detail about this difference.

The material in this handbook presents my current understanding of human functioning and how that applies to effective teaching. It is a specific POINT OF VIEW (POV)! I can stand up within this POV because I know that it is only my 'belief' *subject to further proof*. It is all subject to updating. I hope I continue to be resilient enough and clear of my primary purpose to continually update my knowledge and adjust my strategies accordingly.

I caution you as you move forward in this material. DO NOT BELIEVE A WORD I SAY! This is not about convincing you of anything. I simply want to share what I have learned *so that you can explore it for yourself*. If you find anything useful, use it, if not, don't. I am in no way being coy here. This might be the most important point of the whole story. Explore it, test it, and make your own discoveries. This is not memorization (which I don't consider learning). This is about learning in an embodied, experiential way. It is about discovering for yourself what is true and useful to you and your students. I offer this work because it has changed my life in the most extraordinary ways and many who have encountered this approach to teaching have also found a deep liberation and refreshed joy in their work. I hope some of you who read this might have the same experience.

This handbook will look at two primary territories of information and the application of each in teaching. The first is a new way of understanding human structure and function. The second is how to apply this information to life and teaching. I am presenting a *point of view* and introducing approaches to teaching if these points of view are accurate. Any pedagogy is based on a particular set of beliefs even if they are just implied in the instructions. A particular pedagogy is only as good as its foundational principles. Therefore, I want to make transparent the principles upon which the pedagogical suggestions are presented. I will also periodically compare how the same task would be approached from the currently popular beliefs and demonstrate why I find flaw in one and advantage in another.

A simple example of this would be the following. In some current music education methods there is the idea that excess tension interferes with music making. When a teacher sees someone tense they ask him or her to relax or release a part. A singer might be told, "When you go into that phrase you tighten your jaw. Next time try keeping your jaw loose...put your hand on your jaw." Or the teacher will say "When you feel your jaw tighten, tighten more so you can bring the pattern into your awareness". The student will then go away with three or more ideas 1) She had a jaw that tightens and needs releasing (bad body) 2) She needs to work on releasing the jaw. 3) Since she didn't even notice that her jaw had tightened she will think she needs to be more aware of her body to sing and therefore have less attention available to the music. The entire territory of the teacher stating to the student what the teacher observed but the student didn't is one of the most dangerous aspects of current pedagogy. It is rarely useful and often counter-productive. But then we ask what do we do when the teacher sees the problem and the student doesn't? Isn't that what they are paying us for? There is another way and that is what this material is all about.

The hidden point of view is a belief that we can directly change our body in parts and that that is a useful thing to do; the cause of the vocal problem is the tight jaw; we are designed to tell our physical body what to do directly, putting attention into our body is a good thing; an assumption that if something occurs on the other than conscious level it is a “habit” and needs changing.

In the point of view I will be presenting I would say that we are not designed to directly adjust body parts: that the tightened jaw is the exact coordination of something the singer is up to doing when approaching the phrase; and fundamentally the singer’s systems is perfect. The jaw tightening isn’t the habit but there might be a habitual idea or inaccurate idea about what is necessary for singing the phrase. We would ask question to see what the singer noticed at the moment of the problem with the song. They might not even have noticed the jaw, which in fact may be irrelevant or just a by- product of a root problem. We would use a process of student centered exploration that would leave the student feeling confidence in his/her body while having experiments to take away in order to discover how to sing the way she would like to sing. Thereby avoiding that endless list of “to do’s” that: take a singer further and further away from the music, tend to inspire self-consciousness and self-criticism and may get fine sound but at great expense. I don’t go into details here but wanted to open up the door to the kind of questions I will be addressing.

Chapter 1

Our Suspension System through explorations:

Can you clearly describe the way your system is organized to allow you to be upright? I have asked this to hundreds of people. The response I get is a blank stare and a bit of fuddling to see if someone can figure it out. Culturally the question is somewhat invisible because many of us have grown up with instructions about how to make ourselves better in the upright orientation. Instructions like:

- Stand up straight
- Shoulders back
- Don’t slump
- Get centered
- Relax
- Think of a balloon suspending you
- Ground your feet
- Let you neck be free
- Think wide

The culture in general has an implicit belief that there is something called *good posture* and that we can and should adjust and control it so we can have it. Postural instructions range from very direct *stand up straight* concept to subtle ideas like *just think your neck is free*. But in the end, there are two deeply held premises underlying postural practices:

1. There is a good way to stand upright

2. We can make that happen directly

This way of seeing ourselves has another layer of implications. If there is an ideal way to be, but you as an individual isn't experiencing that way of being, then you are somehow not okay as you are. There is something that can be improved. So you should and can learn to stand up right and once you do, you can maintain that all the time. You will have gained *good posture, good alignment or good use of your body*.

I lived the above point of view for many, many years first as a kid whose parents talked about good posture, then as a dancer when good alignment was the rage and later as a practitioner of Tai Chi, Hatha Yoga and Alexander Technique. Yet in the end no matter how easily I moved or how good my posture or use was I was always finding myself in situation in which when I checked in on myself or saw a candid picture I was not okay. I needed to be better than I was, like an endless little dance of success followed by little moments of shame. I know from talking with others I am not alone in that kind of response to what I call the "postural paradigm."

I am presenting here an alternative paradigm. A paradigm that describes how the human system is built for an effortless, easy, built-in uprightness and a magnificently efficient coordination of all movement. I'll demonstrate how you can cooperate or interfere with this innate system. This paradigm opens the way for you to get out of the way and allow yourself to be fully yourself without endless corrections and techniques to somehow be better than you are. This paradigm can be described as Our *Coordinating Pre-sprung Elastic Suspension System*.

The first section will describe our structure – muscles and bones and such and how they interact to support our upright stature – *The Pre-sprung Suspension System*. The second section describes how the structure is coordinated for living life, *The Coordinating System*. The appendix has a more detailed look at the suspension system for those who want to go to know more. The third section will apply this paradigm in a variety of situations. The implications of this new way of looking at both how we are upright and how we are designed to coordinate all movement, is truly a new paradigm. If this new way of understanding our system is more accurate than the *postural/good use/directly coordinate my body paradigm*, then ways of teaching and facilitating change will be radically affected.

Those of us who understand this *Suspension/Coordinating System paradigm* and have begun to work as if it was true are finding that almost everything is easier. We are no longer not fine as we are. In fact, however we are is the perfect coordination/expression of exactly what we are up to. If we don't like the sensation we know how to get to the root and let the changes occur on their own. But that is a story for later. That is the point of this book. I want to give you enough information about this paradigm so you can test it for yourself and see what you experience. I include stories from people who are teaching this way to give you real world examples of the changes they have made and

why they are seeing advantages and relief in applying this new paradigm to their work and their lives.

The Human Structure – Our Pre-sprung Suspension System

Origin:

In this section I present the description of our basic structure for movement and how it works together to bring us up and open into the world. This model comes from the insights author and teacher David Gorman had about the human system based on seeing the system as a functional whole.

Gorman was writing and drawing a three-volume anatomy book called the Body Moveable that put together information from many anatomical sources. He was also leading an Alexander Technique training course. He had a curiosity about a phenomenon that was a common experience for anyone who studied Alexander. Why was it that at one moment a person could feel heavy and labored and then in the next moment feel light and easy and springy? Even if you haven't had an Alexander class you may know that feeling from other kinds of experiences. Here I am in my same body but I feel totally different in one moment than another. Gorman wondered if there was an anatomical/physiological explanation for that change. So he hit the books and began to study in great detail all the most current information about muscle function, structure, physics, and physiology. In the midst of all that immersion of information he had one of those "light bulb" moments when the answer hit him like a flash. He spent the following years teaching his insight, refining it and discovering the implications of what he had understood.

What follows is my current understanding of Gorman's insight. While my current level of understanding has brought me and my students a long way, my experience with this material tells me I will constantly update my understanding, (as has already happened during the course of this writing). The material is based on Gorman's ability to know all the minute details of anatomy and step back to see it all from a functional point of view. If you look at the multitude of anatomical texts most of it sits in the detail without ever seeing how the detail works together into an incredible, lively moving system-Our Pre-sprung Elastic Suspension System. See Appendix for a more detailed look at how the system works.

Entry Point:

If you step back and look at a full view of a human being you'll see a structure in which most of the mass is up high over the feet. Not only that, this structure is inherently instable with more mass in front than in back. We are a system that demands both stability and mobility. We need to be stable so we don't fall over all the time. We need mobility so we can get places and change shape. At first these two demands may seem contradictory. But as this story of our upright nature unfolds we will see how they are a perfect team to allow us to live in the world in a freely mobile, open and upright structure.

As we enter this story of our Suspension System I will guide you thru a few experiential explorations. I do this for several reasons. The first is that it is the experience that gives Understanding, Understanding with a capital U. Understanding to mean experiential understanding, one you can embody, that you can apply and manifest, not just a concept or idea. The second reason for the explorations is that I have only taught this material experientially, layering one activity after another to build a full picture. The third reason is that if you conclude this all makes sense to you then this very section will give you some practical explorations you can use with your students. Many people get excited by the material but don't have a means to teach it since this model in many ways demands a whole different pedagogy. These explorations are an actual pedagogical approach. Don't

A basic format for guiding exploration is as follows:

1. State a purpose – what are we exploring
2. Do the exploration – it is often a comparative event
3. Ask questions to draw out students experience and ignite thinking/understanding
4. Possibly do more activity if something wasn't experienced
5. State significance, make meaning of the exploration by tying exploration to the principle you are teaching

Leaning Exploration – The purpose of this exploration is to experientially bring forth several key properties of how we work.

The exploration/experience and directed observations (questions):

Come to standing. While looking around the room can you tell if you are standing more on any part of your feet: more forward, back, more on one foot or another? If you can what area is it? (If you cannot, that is not a problem. We'll keep going).

([illustration here](#))

Now purposely lean a little bit forward, not so much that you are off your heels.

- Why aren't you falling over?
- Where do you notice the activity in your body that keeps you from falling?
- How would you describe it?
- How much of your body do you feel involved?
- What would happen if you let go of the holding/tensions you feel?

Now lean back and ask the same set of questions as above.

Now come to standing where you aren't leaning in any direction. Come to *roughly* an even distribution of contact with the floor. Another way to say this same thing is to come into the *center of your support*. The ground is the supporting surface. You, through the contact with the whole of both feet, are over the center of that support.

- Is the activation of muscles the same as when you were leaning?
- What is different?
- Why is there a difference?

The Significance:

There are numerous properties of our system that are demonstrated by this experience. Can you identify any?..... Here are a few:

- Did you notice that when you were leaning you didn't fall over? Your system automatically activated exactly the response you needed to lean and not fall over. The key here is *automatically*. You didn't have to say "calf muscles hold". You had an implicit intention not to fall (a basic drive to not be injured) and your system coordinated the response. **This simple activity demonstrates how naturally and automatically your system responds to your intentions both explicit (I want to lean) and implicit (I don't want to get hurt).**
- If you let go of the tension when you are leaning what would happen? The answer of course is you would fall over. **The tension is exactly what is necessary to keep you from falling.** It is "good" tension if your goal is not to fall. This observation foreshadows a pivotal principle of the nature of your system and how you can get in trouble. **The sensation of "tension or strain" comes to you when you are off your support.** When you are in the *center of support* (standing with even distribution of contact) you generally don't feel tension or strain. There is lots of muscular activation going on but the message you pick up is almost a neutral, ease. While leaning the message is stronger, tension. The tension is exactly what is necessary to not fall down. The tension is the feeling of leaning or *being off the center of support*. In this lean example if you confuse the tension as a "bad" thing that you should release you would be confusing useful information (tension to tell you, you are off center) with a symptom (tension is bad) and then trying to change that "symptom" without finding the cause. In this way you'll end up in a tension/release cycle based on the misinterpretation and symptomatic approach. By directly releasing the tension that happened as a natural response to leaning you'll fundamentally interfere with your complex and perfect response system.
- What the above is showing you is that **your system has built right into it a means to signal you about what you are up to.** The feeling of tension when you are off the center of support IS this signal telling you that you are off balance. It is useful information. The key for you is to accurately interpret the meaning of the signal. The interpretation of sensations/feelings/experiences is the area in which many of us get into trouble because we often ignore the signal or misinterpret it. The sensation of tension of the leaning for someone who has habituated a lean into his upright stature is sometimes interpreted as the feeling of standing up and that leads to an idea that standing is hard work. In this way a misinterpreted signal (feeling) can lead to a cascade of misconceptions about oneself and the world. **Learning to accurately interpret the ongoing flood of signals you are receiving is one of the core purposes of this work.** The

more accurate your interpretation of your sensations/feelings (your system's signaling system) the more likely you are to functioning optimally.

- Notice how the response of muscular activation happens throughout your body from toe to crown. In the forward lean most people will first notice, "tightening in the calf or thighs or lower back." If you lean a few times you'll usually be able to feel the response way up into the jaw and neck. The response is modified to some degree by the state of your current muscular activity or "standing habits". But almost everyone can notice that the response is quite global and whole. This demonstrates a property of your muscular system in functioning. **Functionally your muscles don't work like individual pieces they work like one whole muscular web or one perfectly responsive muscular suit.** Anatomists, surgeons, massage therapists might need to know a specific muscle but in activation the action of a specific muscle is not alone or even just in pairs, as is commonly taught. Your muscular system works like a whole web or as Gorman describes it as "an elastic muscular suit."

There are other principles that can be brought out of the simple lean exploration. We'll come back to some of these. But for now notice that what we've begun to demonstrate is that **when you, for example, want to point to something across the yard, take a step, take action, there is a global coordinated extremely efficient response.** This response allows you to do what you want to do. The response perfectly matches your instabilities. You don't have to tell muscle groups to activate or inhibit. The response happens automatically as long as you are clear of what you want to do. I want to touch my head. I want to walk across the room. If you are off support your system signals you via the tension sensations that you are off support.

We can take this exploration one step further.

Center of support/mobility Exploration – The purpose of this exploration is to demonstrate principles of balance, support and mobility.

Come to standing and lean a bit in every direction; then come to standing over the center of support or where you feel you aren't leaning in any direction and you are *relatively* evenly distributing the contact of your feet on the ground.

Now bend over to touch the ground and stay touching the ground for a moment. Are your feet in even distribution of contact with the ground or are you more on one part of your feet than another? Keep this as a reference for what you would naturally/habitually do.

This time as you move to touch the floor retain the same contact with your feet in even distribution with the ground throughout the whole excursion to the ground and up again. Can you move and not lose the balanced, center of support? In order for you to stay in the center of support while bending what would have to happen?

When you bend over there is a huge change in balance as the bulky torso heads out in front of you. One way you may avoid falling over is to come forward on your toes without bending your legs. Consequently you'll be off the center of support and your muscular web will have multiple areas of felt tension, forces will be focused on the lower back and neck and knees. (See illustration)

Another option is to allow yourself to retain the even contact with the ground over your feet and as the torso heads over to bend you allow your system to be freely mobile so that a natural counterbalancing response occurs in which the legs bend, the tail end goes back and you are centered in support throughout the excursion to the ground and up again. In this case there aren't strong tension signals, forces are distributed across your body.

(illustration here)

Play around with this. While retaining the even contact with the ground reach out around you in space- front, side, back, up and down. Then let your self go off even distribution of contact and reach around. It helps some people to think of touching something beside them, behind them. In a movement class I have people imagine they are inside a constellation. See a star, touch it, stay there a moment and determine if you are in the center of support or slightly straining.

Now reach a bit to the right of you and don't necessarily keep the even distribution. You'll have more pressure in the right foot and feel some bending and work in your back and thighs with forces focused on the right knee perhaps. See if you can reach to the same spot but retain the even distribution of contact so you are not more on the right foot but have equal contact sensation across both feet. Your joints will have to bend to once again allow the counterbalancing to occur. In this center of support orientation to reach there won't be strain in the back and again there won't be forces focused on any parts like the right knee.

The significance

Notice in these comparative explorations that in order to retain your center of support while moving or changing shape your whole system has to be freely mobile to counter balance the changes in balance that are part of movement. 1) **Mobility of the whole of you is a key component to allowing stability in action.**

2) Notice also that being balanced, centered or supported (I use these synonymously) is not a spot or a place it is a *property of movement*.

3) Notice also that you cannot be off the center of support and not be strained. It is a physical impossibility. Luckily your system is perfectly wired (coordinated) to give you the signal of strain when you are off support and focusing forces. Here again the key is that you register the signal, understand the signal and respond accordingly. Many people ignore these signals and in many cases even interpret them as a good thing - "I'm working hard and that's good" and

Pedagogical principle - Detecting Signals – awakening awareness - This kind of comparative exploration and articulation of the significance of an experience is key to bringing to your consciousness the details of experience your system may have previously designated as unimportant. Since you can't be aware of everything in a particular moment your system has to prioritize what is and isn't useful to bring to your attention. If something seems unimportant then it is easily ignored and not even registered by you. But when you see "oh that familiar feeling of strain is actually a sign I am moving in a way that may lead to pain" your system begins to bring it to your attention. In this way a previously ignored sensation gains significance to your system and you have a key tool for changing an interfering habit.

eventually strain becomes pain and if ignored it becomes real tissue damage.

Pedagogical principle - The nature of the system

It is essential at this point to be clear that the purpose of these explorations is NOT to show you how to move in some "right" way. **The purpose is to show you about the nature of your system so you can register, understand and respond to your experiences.** If you take this information and simply try to stay in the center of support all the time or conclude, "Oh I need to bend my knees more" you'll miss the point and easily go off into a whole realm of misinformation, corrections and side tracks.

It is important to go off support lots!!! The key is that you recognize the sense of strain. "Amazing, I feel the strain. It is perfectly telling me I'm out ahead of myself." Then you can do with it what you will. You don't have to go around trying to be right to avoid injury or move optimally. All you have to do is be curious and awake to the meaning of the signals with which you are constantly being flooded. You don't have to be aware of you body or movement. You can just go about what you are doing how you are doing it. You'll begin to notice that strain signals just arrive and wake you up. This seems to happen as long as you once in awhile register that this signal has significance.

Pedagogical Principle -Target Practice. Leon Thurman articulates a useful image for the nature of learning based on brain research. He refers to learning being a matter of taking target practice. When learning a skill you have to go off target to learn the coordinations, synaptic connections, neural pathways that let you learn the skill or hit the target. Mistakes are just human constructs often surrounded with negative connotations. “Don’t make a mistake.” “Mistakes are bad.” Worse yet: “I’m bad because I made a mistake” In actual fact a “miss take” is what your system has to do to find the target; you have to go off target to learn where the target is. When your system registers “ah that dart went slightly to the left” then your system makes an adjustment, it learns what isn’t the target. Your job isn’t to say “Now I’ll move my hand to the right.” You just need to keep your eye on the bull’s eye and allow your system to learn how to throw the dart and hit it. **Your system learns to throw the dart and hit the bull’s eye by taking target practice, by going off target.** In the case of discovering and understanding balance you aren’t in a skill acquisition situation. But many of us apply the “right/ wrong”

How to test these concepts out on your own:

The key to true understanding is to begin to test these ideas out. When I first was introduced to this *Center of Support* concept I didn’t want to believe it. As a dancer it sounded like it would limit my range of expression. I made a simple experiment to test what Gorman was showing me. I decided when I was working in the kitchen I would investigate what I normally did and also explore different actions using the *Center of Support* idea: doing dishes, chopping vegetables, reaching into a low cupboard for a spaghetti pot, climbing up onto the counter to reach for a dish on a high shelf. I’d go off support and on support. I learned so much doing this. I wasn’t trying to work in the kitchen in the *Center of Support*. I was trying to prove Gorman wrong and experimented. Consequently, I am now teaching this material partially from what I learned by challenging the material.

When you are first introduced to an idea experimenting is way to bring it forward into your consciousness. By setting up times or places to play with going off and on support you will heighten your sensitivity to those messages. In this way eventually you won’t have to remember anything you will just be alerted to discomfort and be free to respond. This is just a small part of the picture which will come clearer once we add the most essential Coordinating System component.

The Coordinated Elastic Suspension System

If we summarize some of the key principles that emerged from the Center of Support explorations we begin to paint a picture of the characteristics of the suspension system:

- The system is fundamentally instable
- The musculature is designed to match your instabilities and support you to be stable and mobile in complete freedom
- The system responds automatically and perfectly to your intention

- The musculature functions like one elastic suit always matching the instabilities and allowing you to do what you want to do
- The system signals you when you are on and off support – ease or strain

Instability, resistance and tensegrity

If you are standing and suddenly faint your body will collapse forward, the head falling then the chest and so forth down to the ground. You can just look at the profile of our body and see the primary forward instability of the head and torso. There are backward and forward instabilities in the legs. The musculature is arranged around your bones in such a way as to perfectly match the direction of instabilities. So for example there are huge spans of muscles along your back. There is built into your system an interplay between the spreading forces of the bones and the resistance in the elastic structure that in the sum total has the effect of internally suspending you, if you don't interfere. You are an elastic suspension system.

Simplistically on the structural level we are made up of elastic structures (connective tissues and muscles) and rigid structures (bones). In the detailed description in the appendix, I demonstrate the way elasticity and resistance work together with rigid structures in our bodies. Our bones extend in multiple directions. Therefore there are multiple directions of stretch and resistance throughout our structure. Our bones are primarily spacers giving us room for our organs and giving space for leverage. The muscular web is lively, elastic and constantly responsive to our instabilities and movements in such a way that we are internally suspended, sprung into shape. Our upper end supports the lower end and the lower end supports the upper end. This is like a tensegrity structure in which the opening of the rigid structure puts stretch on the elastic structures to erect and internally suspend the form. The tension gives integrity to the form. Think of one of those children's toys made of colored sticks and elastic connectors. (illustration) The more we allow our selves to be free in all directions the more the whole system is available to exactly match the instabilities and keep us stable and mobile simultaneously. Forces are distributed across the system so damage to the tissues is unlikely.

We are a living creature and much more complex than a tensegrity structure. But as an image for how we work the tensegrity/suspension model is much more akin to our functioning than an alignment model or stacked up model that is inherently quite static and one in which forces accumulate downward. In a stacked, aligned model the head puts pressure on the neck, the neck on the spine and so on down thru the body. There is a sense that gravity is problematic. Often there is an idea we have to hold ourselves up. In a suspension model forces aren't focused and there is no accumulation of forces occurring. Gravity is in fact a vital ingredient for the up-thrust of the structure. Upright happens by simply wanting to be up in the world and allowing ourselves to be in the center of our support. See the appendix for details on this. Gorman calls our system a "gravity processor".

Ways to approach teaching and talking about structure based on this suspension model- Practical Implications and Common Interferences

If this suspension model is closer to our actual design than the postural or alignment models then how we talk to ourselves and others about what is useful for being healthfully upright will be very different. The physical principles that govern a suspension system are quite different than the physical principles that govern an alignment, postured structure. In fact in many cases they are contradictory. So if someone has been imposing principles from the postural model on to the suspension system it makes sense there is confusion and frustration. Since the principle doesn't fit the structure. This is why I am writing this handbook. **The suspension model unravels so many of the common issues surrounding "good" and "bad" posture simply because it is more accurate to how we actually work.** We may discover something more accurate than this perhaps a new energy component but for now this seems to be a step forward to a clearer, less problematic way of seeing and teaching human movement.

Standing in Suspension- An exploration to experience the suspension system model as compared to another model described in the New York Times:

Stand up. Lean a little in different directions. Then come to *relative* even distribution of contact with your feet over the earth. Look around at the room you are in. Note that in a gravitational universe the earth is coming up underneath you just as you are coming down to meet the earth. Since most of us have been inundated with images and ideas of how gravity pulls us down let's put a little more emphasis on the equally true but less detectable fact that there is an upward force of the earth up thru you. The huge difference in size makes undetectable the upward thrust. But none the less, the earth rises up under you and your feet come up under your lower legs, your lower legs come up under your thighs and this carries on in an upward direction right on through and out of you. So as you stand there don't pull your self up just notice there is a matching of downward forces with equal and opposite upward forces. Add to that idea the sense that your bones are extending away from each other, opening you up and out in space. You don't have to hold yourself together or hold yourself upright. You simply have to want to be upright looking out at the world and your system, which matches the mechanical response to your intentions, will do exactly the perfect degree of resisting the spreading of bones and exactly enough allowing movement to let you remain standing in a open, easy, suspended way.

Compare the above instructions with the following instructions that come straight out of a November 2008 New York Times article on fitness and walking(NYTIMES 11/13 /08 p.E11Learning How To Walk (Chewing gum not Included) by Sara Eckel). "1. Bones stacked. Your body should fall in a straight line - ears, shoulders, hips and ankles. 2. Buttocks released. 3. Legs back. Set the muscles of your inner thighs back to allow the legs to fall directly underneath the pelvis. This will keep the pelvis level and the spine balanced. 4. Belly strong. The stomach should be strong and the middle of your back filled out so you are using you entire core as you walk. 5. Head lifted. Imagine someone is pulling a string from the back of your head, allowing the chin to fall to level ...and the throat to soften."

What is the experiential difference of the two ways of coming to standing?

What premise or point of view underlies each? Can you start to detect the point of view imbedded in instructions?

Let's look at two of the most common interferences with the easy functioning of the suspension system. The first is any imposed positioning or rigidity. The second is turning off of the system collapsing or "relaxing". This exploration will also demonstrate how you can investigate instructions on your own and see the actual effect on you.

1. Positioning example: Come to a somewhat centered over your support, easy and open upright standing (as described in the standing in suspension description). Gently lean forward and back. Come to easy stillness roughly over the center of your support.

Now lift your sternum and hold it there, as if there is a position you need to stand in. Notice the effect on the rest of your body when you lift your sternum. Where is the contact with your feet on the ground? What happens in your legs? Back? Keeping the lifted position lean again. What is your ability to balance like in this position?

Let go of the imposed sternum lift and lean again. Go back and forth a few times from not imposing any added position to imposing the lifted sternum position and note for your self the effect of each option on:

- the ease of movement
- the whole system's ability to respond and keep you from falling
- your sense of feeling more or less human
- your ease of breathing
- your balance

Which is easier? You can use this comparison to try on all kinds of instructions people suggest for improved standing. In this way you can decide for yourself what actually helps you.

2. Relaxing-collapsing example: This time, come to an easy center of support. Now collapse a bit as if you are feeling heavy and tired "relaxed". Then lean again and notice the ease of balance and movement with this collapsed orientation of your body. Compare this collapsed way to leaning with the imposed holding and with an easy, open standing.

What are the effects of the different options on different functions like breath, mobility, emotional freedom? What are the differences?

Pedagogical principle - Autonomy - Self assessment - Notice in the above comparative explorations I, as the teacher, am directing an experience to demonstrate different aspects of what supports or interferes with easy uprightness/the suspension system. I am then asking the student to describe the effect the different ways to stand have on different aspects of his functioning like physical ease, breath, a sense of humanness. By setting up comparisons of different ways to approach the same task and then asking the student what the result was and what she valued we are setting up a learning environment that guides the student to discover her own criteria for what she wants. She learns a means to ask questions and evaluate so she can decide for herself what is or isn't useful for her. This leads to autonomy in the student. This is the skill of accurate and essential self-assessment.

This is a distinction from much directed teaching in which what is right and wrong is usually based only on the teacher's criteria and that criteria is rarely stated explicitly. (In fact a few teachers don't even recognize their opinion is simply a point of view based on a set of criteria. They see it as truth or THE right way to do a thing.) In directed teaching an instruction is given as in the Times list. A student will follow the direction. The criteria for what is "right" for the student comes from outside and usually from a perceived authority. The student often ends up feeling wrong and often wishing the instructor who showed him how to do that was around to ask "Is this right?"

If a student comes up to me and says "Is this right?" "I know I have work to do. I'll usually ask "Right in what way? Right for what? Or How would you find out if it is right or not? What criteria would you need to have to determine whether it is right or not? It became a joke at a

A wonderful tool of LearningMethods is: *Hear your own questions and answer them*. Many of us will have a question pop into our mind and never even register we've asked a question, let alone take the time to answer it. I've seen many students get to the heart of a problem by simply hearing and answering their own questions. (more on LearningMethods later)

Significance of the above explorations. For the suspension system to work the whole system needs to be available to respond. A shift of your head has an effect down to your toes. If you lock up a part then the system will do what it can to give you your intention but it will be a much cruder, and partial, response. If you collapse, which is a kind of shutting off of your musculature, you don't have your whole system available either. We can interfere with our easy suspension by holding, by collapsing, by misconceiving our system and numerous other ways.

Here are several explorations you can use to unveil several common interferences to allowing the suspension system to function freely:

1) Mistaking weight - gravity – faulty self-image

Here's a demonstration to show both a property of our system and how we commonly misinterpret it:

Two people stand facing each other. One person puts her palms together in a prayer position in front of her body. The other person puts his hands on top of the other person's hands.

The person who is covering the hands of his partner then presses his hands together, which means he is pressing the other person's hands between his hands, to mirror the pressure he feels under his feet. So the pressure in the hands matches the pressure he feels under his feet. This just takes a moment.

Then partners switch roles so the other presses and the other experiences the pressure the other is giving to replicate the feeling of pressure under her feet. .

Then we ask a few questions to bring out the significance of the exploration:

- Approximately how much pressure did you feel when your partner was pressing your hands with his hands?
- How much did you feel you were pressing when you were the person pressing your partners hands?
- Think about your weight on a scale? Was the pressure you gave or felt close to this?

People generally report feeling five or ten pounds of pressure, sometimes a bit more. But it is nowhere near their weight on a scale. We don't feel our mass. Notice we feel this light contact with the planet. Yet contrary to this actual experience, this light contact with the planet, many of us carry around an image of being heavy, weighty and that gravity is something to fight.

Let's explore this concept of gravity in another way:

A) Stand up and for a moment think of yourself as a made up of heavy mass and weights. Now let go, turn off everything and what happens? Most people will start to collapse over. But that happens only because they are thinking of themselves as made up of these weights and heavy bits.

B) Now stand and come into relative even distribution of contact with the ground. You've got this whole length of you up in space. Think for moment "Here I am. What I want to be is up from the ground, up in space. I am letting myself go 100% in this direction right up over the ground. As far as I can tell nothing is holding." Notice that you can be standing here not falling and not holding. Where as a minute ago you were letting go and falling. The only difference is in your direction of thinking not in your body.

Significance and application:

Come to standing and take this experience in for a moment. Here you are standing lightly rooted to the planet. Gravity isn't pulling you down. It is both rooting you to the planet and springing you up. As Gorman says "We are gravity processors." Take a little walk with this self-conception as lightly sprung. Is that different than how you normally go about your day? What would it be like to take the reality of that spring into all your actions?

Many people feel quite differently from one self-image to another. If you carry around an inaccurate image that gravity is only pulling you down and you have to do something to pull yourself up, your way of being in the world will be utterly different than if you conceive of yourself as an open, suspended, mobile being, whose system is designed to erect you and balance you. This is the way you are unless you have interfered with your system.

2) Imposed positions

Another common interference comes from a point of view that there is a right way to be and we should directly make it happen. You explored this to some degree in the standing and leaning comparisons above. Usually this imposition involves telling parts of our body to be in certain positions, like the example from the Times article that was full of telling you how your body "should" be from "legs back to your stomach should be strong". When we impose an idea of how a body part should be we are essentially coordinating a small part of a vast system. We create a block in the totality of the system. Often we impose an idea we think is better than something occurring. So the imposition has built into it a value of "right" or "better". If we do it long enough the system will structurally change to accommodate that imposition. By structural I don't only mean muscle, connective tissue lengths, bone, but all the neural network paths get carved to support this imposed idea, since the brain also adapts to way you function. That's what habit and skill building is, you practice something overtime and neural paths and neural networks become stronger and stronger so you can do that task more and more automatically. This whole territory of brain plasticity has huge implications on this material and this material has huge implications for research on brain plasticity. But that is another subject.

3) Misunderstanding human structure and function

The example from the Times quoted above demonstrates many aspects of an inaccurate but common model of human functioning. Of course the instructions were created with the best of intentions and in many cases probably helped people being perhaps a contrast and change from a student's habit. But I also bet that there were plenty of unseen negative consequences to these instructions as well. I say this quite compassionately because those are instructions that I said for years, getting more and more frustrated as I truly evaluated the results. For every person that seemed miraculous helped there was a person who wasn't helped. Let's look at one of these instructions for the difference in point of view. For example the instructions "legs back" doesn't really makes sense. Legs back from where? "Set the muscles of your inner thigh back to allow the legs to fall directly underneath the pelvis." The instruction implies that we can "set" the muscles and keep them there and that there is a position for your legs to be in. Even worse it implies that we should be directly telling our muscles what to do. That in itself is a fundamental interference with our vastly complex system. The instruction also shows a lack

of understanding of how the musculature is coordinated and how it adapts to our functioning. As Gorman sometimes says this controlling of the musculature point of view is as if we think a few years of living is wiser than millions of years of evolution. Underneath the whole set of instructions is an idea of a “should” which for most people starts a whole set of emotional reactions and trying to be right. That alone coordinates the system into a particular set of unnecessary tension.

Summary

When a person begins to explore being up and over the planet in a free and open relationship while getting clarity of the upward forces of the suspension system model their whole structure begins to change. As they begin to ask themselves questions rather than try to get something right they gain an easy self-reliance. To help someone out of a habit there may be times in which we identify joints and relationships as generally as possible between say the cylinder of the torso and the legs. But instead of using positioning words like *put, keep, hold, straight*, we invite exploration and comparison and contrast with words like *allow, invite*, and qualifiers like *roughly, relative, as close as you can get or other phrases that don't evoke a one and only should kind of idea*. **The language we use is a tool to evoke an attitude toward the system.** It is used to help a student develop their own criteria for assessment rather than try to get a particular “should” that comes from an external authority. It is also designed to align with the mobility of the suspension system rather than the rigidity of the alignment, positioning model.

Standing IS NOT A SKILL. The system is pre-wired to give you easy, open uprightness and mobility (unless of course there is damage to brain or other genetic conditions. Even in these cases this way of seeing it can be more helpful than imposing or forcing coordinations.) Your job isn't to tell your body how to be ie. “stand tall or have good posture or relax”. Your job is to want to stand or walk or do things and allow your amazing system to take care of the rest.

My Personal Experience with the Suspension System Model and the nature of habit, interpretation of sensations and how change occurred.

As I have worked with the suspension system model for many years now I have found for my self and for my students that there can be lots of change and benefit from self-exploration like the preceding ones. But since many of us have many years of living that has interfered with the suspension system it can be of huge help to work with someone who understand this system. A habit by nature is under our conscious awareness. The habit actually shapes our brain and how we interpret our sensations and our conceptions of the world around us.

For example I had made some great changes so that I was much less caught up in my body and much freer to move. But I was still having some periodic knee pain. In a lesson with Gorman I was coming to what I thought was even distribution of contact with the planet, coming to my center of support. He could see I was still leaning back. But he never mentioned it to me. As he invited me to explore moving forward I felt all the signals of falling, tension in my legs, a sense of leaning and the big one-fear of falling. He asked me to let go of the grip in my legs and see if I was actually falling. As I allowed myself to be in this different orientation to the

planet I felt a whole new level of freedom. What had felt free before I could now feel was strained. And what I felt was falling was actually balanced. I especially could sense the pressure I'd had on my knees when I was just slightly back and holding vs. the ease when I wasn't back and holding.

How I initially interpreted my sensations wasn't accurate. My experience of upright was actually a slight lean back. Just as when I was actually more upright it felt as if I was leaning forward. When we put meaning on sensation we are teaching ourselves an interpretation of the sensations, "that _____ sensation equals upright". We stop even noticing the sensations. Our system registers contrast, change, not truth. It was only when I allowed myself, with Gorman's guidance, to do something different than habit could I actually experience my habit as a habit. It was only then that I could evaluate the accuracy of my interpretation and update it. The update alone goes miles to changing a habit. I didn't end up having to think a position I should be in or have to keep telling myself to let go of a grip. Those were just momentary instructions to take me out of habit. At the same time Gorman emphasized the nature of the system and how I didn't need to interfere. My interference trained from dance was the problem.

Pedagogical Principle -These are key principles for any teacher to understand: Our system:

- 1. Makes habit invisible**
- 2. Registers contrast not truth**
- 3. Is constantly interpreting sensation**

Our feeling/sensation is accurate our interpretations sometimes aren't. So as a teacher we are often helping students reassess their interpretations, update them based on evidence from their

Interpretation and Meaning of Sensation – traps and clarity

If the interpretations/meanings we assign to sensation are inaccurate it can be challenging to take ourselves thru an exploration and make discoveries. I have found it takes experiencing our mis-interpretations several times through with the guidance of a teacher before it becomes easy to make discoveries ourselves.

During the course of writing this section I have once again delved deeply into the experience of the model and came to a whole new level of understanding. I was taking a student through the standing exploration described earlier. She was having a difficult time fully grasping the change she was actually experiencing. She was a body worker so I knew she could learn a lot by feeling the difference in me when I was or wasn't interfering with the suspension system.

I had her touch me as I stood in what externally might look like very balanced uprightness. Then I let myself come more over the center of the planet and didn't hold on to anything, just as I described in the standing exploration above. I was simply allowing myself to be open, and free of holding and letting my system take care of my stability. I went back and forth between my habitual holding and the getting out of the way and allowing my instabilities and responses a few times. She said, "Oh my God, It is the difference between touching a cadaver and a living being."

That's kind of what it felt like in me too. Although the cadaver version had felt fully free and open and balanced just days before when it was my current understanding of the open suspension system. I had simply explored being in the center of support and simultaneously risking really getting out of the way, doing nothing other than intending to be up. There was a change. The first thing I said was "I can see there is no way I would get foot pain, plantar – faciatus or any other pain if I functioned from here." Externally it was a subtle change and possibly impossible to see on the outside. But my entire system, muscular web was functioning totally differently. Forces were distributed and literally I felt hung and open. The best part was it was a discovery I had made on my own.

It was so loose and free at first I felt wobbly and really unstable (that was my initial interpretation of the sensation-unstable) But as I tested my stability I was fully stable but I was also fully mobile. **It was the freedom that gave me stability.** This was counter-intuitive. We are trained that stability is static, rigid. But here I was free and stable – mobile and stable. In fact I was actually much more stable than when I was more rigid. It reminded me of an idea in Tai Chi that if your center is invisible to the opponent they have nothing to push against so they can't knock you over. That is what getting out of the way and allowing the suspension system to work is like. I felt invisible in the best sense of the word. I felt centered but I didn't feel my center.

The student with whom I was working had a similar initial reaction when she came into more balance without holding. She felt it was dangerous and she might fall. But with some exploration she updated that interpretation and began to see she was in fact much safer inside the freedom than the seemingly stable rigidity.

Pedagogical Principle – Functioning and implications on chronic pain and injury

There is an important piece of how our system works that is imbedded in so much of the above explorations. **It has to do with a simple fact that we don't feel our body we feel our current state of functioning.** As someone who had spent years "feeling my body" taking training in body awareness and such this was perhaps the most radical and disconcerting idea of all. I certainly met it with the most resistance. But in the end, phew what a relief if this is true.

Let's go back to the partner hand press exploration. Remember how when you matched the pressure you gave with your hands to the pressure you felt under your feet it only felt like 5 to 10 pounds? Why does it make sense you don't feel your weight under your feet?

You don't ever feel your weight. You feel your current state of functioning. Think of the explorations when you thought of being heavy or when you thought of being sprung upright. Our same system can feel totally differently. Your thinking effects you structure, it effects your functioning.

Take a moment and feel your right knee. Generally you'll narrow the attention inward to the right knee. At that moment you aren't feeling your knee, you are feeling the feeling of feeling your knee. You are feeling your functioning.

This is particularly problematic when someone has had an injury and wants to protect a perceived vulnerable part. Try this. Imagine you have a "bad right shoulder" that you need to protect. Protect your shoulder and check if it is ok. Notice what happens. Most of us tighten a little. In several cases of people in chronic pain it was this mistaken action of constant checking in on a body part and consequent protecting that kept them in pain. As soon as they stopped doing that checking in and protecting activity the pain subsided. "When we have an unhealthy part we want a healthy part. But when we are healthy we don't have a part at all" (– David Gorman in workshops). So if you've been injured don't

Summary

If for a moment we really take in this concept that we feel our functioning we can see it is another miracle of our system. There would be very little advantage to feeling a steady state of our mass, our weight. BUT there is huge advantage to perceiving various states of functioning. Our mass isn't changeable from moment to moment. Our functioning is changing split second by split second. When you perceive changes, which is really what our brain primarily detects- CHANGES in FUNCTIONING, then you have information you can use. How we interpret the message the sensations gives us is key to using that constant flood of sensation information we receive in a more or less useful way. Amazingly enough our system is also designed to give you the sensations you need. Generally, you don't have to go in hunting for them. Body

awareness isn't a skill and an act you have to do. It happens to you when you need it as long as you aren't interfering. (Much more on all this in the Coordinating System section.)

A note on body awareness training: Since it is so common for people to live a busy life and ignore signals from their body there are many approaches that promote focusing attention inward to feel the body, (going in to feel) doing body scans and such. There may be a place for these. But the simple act of slowing down and attending to the moment may have more to do with stress relieving results than the narrowing into the body. I have found people can learn to become more awake to their system's guidance without the pitfall of so much narrowed internal attention. Instead of replacing outward attention with inward attention I invite people to attend to what comes to them thru their perceptions at any given moment. In this way they are out of their 'doing' mode. It is quite recuperative to evoke a "listening" "being" mode. People gain more access to the information from their body without being trained to do the un-useful narrowing-into-the-body-to-feel-it practice.

Some implications

In my experience of over 40 years of involvement in dance, somatic work, Alexander Technique, martial arts, Yoga, medical, healing and meditative worlds, I have observed that even work that says you are an integrated body/mind system and posture is inherent, doesn't often apply that principle in practice. When working with someone who is seen as being "off center, or slumped or stiff or some sort of not-the-optimal-way of being" many approaches will in practice direct the person in such a way that the end result is some kind of more or less subtle imposition to this beyond comprehension, complex system that is you.

In many ways conveying a pedagogy for facilitating change based on these shared ideas is the primary reason I want to get this material out to the world. I think many approaches designed to help people function optimally in the world do understand our systems as complex and whole, integrated and miraculous. But when facilitating change they will actually interfere with that very system. The coordinating system model and the tools we are developing based on this model are a means to facilitate change with much less tendency to create interferences. By aligning the methods with some basic criteria based on this material the system find its own, complex adaptation to new intentions and actions.

In Summary:

- Structurally a tensegrity model or coordinated pre-sprung, elastic suspension system is a closer description to how we work than alignment and postural models.
- You can interfere with this elastic suspension system in three primary ways:
 1. By holding your body, adding rigidity
 2. By collapsing, "relaxing" or turning off the musculature
 3. By having a faulty idea of how you work like "I have to fight gravity or I have to hold myself upright."
- Experientially understanding what it is to be in the *Center of Support* and off the *Center of Support* is a key tool to healthy functioning.

- Experiencing and understanding the way your system coordinates response is also key to determining useful strategies for making change when there is a problem or learning a skill.
- Your thinking/intention/feelings effect your structure as much as any mechanical fact.
- You feel your functioning from moment to moment not your mass. You don't feel your body you feel your functioning.
- Some basic criteria you can use to assess your functioning is to ask:
 - Do I feel more or less mobile? or Can I move in any direction easily?
 - Do I feel more or less stable?
 - Do I feel more or less human?

Chapter 2

Introductory Exploration – Three ways of walking

1. Walk around the room in a rush. Not a fake rush. Actually think of grabbing that book and getting it over on to that table as fast as you can. Find ways to actually rush around the room.
2. Walk around the room while thinking of something else like what you'll do later today or practice a piece of music or script or such in your mind.
3. Walk around the room and look at things in the room.

As you did each of the instructions did you decide to change what you were doing with your body?

You've essentially done the same basic task three times. You've walked around the room. But was each walk exactly the same in your experience?

Describe the difference between each walk?

If you did this with other people you can describe the difference in what you saw in others as they changed tasks?

If you are having trouble detecting a difference you might notice some specifics like were you seeing the same things in each? If not what was the difference specifically? Was the tension in

The Coordinating System

I have led many, many groups through this exploration. There are several common differences between these three walks. Rushing generally feels tenser, quicker, with a forward sensation compared to the other two. The thinking-about-something-else walk tends to have an inward focus. The head is generally tilted down and there is sometimes a heavier feeling compared to

the other two. The looking-around-the-room walk is generally reported to feel the easiest to people, a sense of calm and the ability to notice details of the environment.

If you recall seeing people walking you can somewhat sense what they are attending to by what you see in their carriage and energy. Actors rely on this common experience. Someone moving fast, tensely with a forward orientation looks like they are rushing. Someone meandering in the room looking at objects looks like they are just calmly looking at the room. Someone with his head down and eye looking inward appears to be thinking about something else.

There is fascinating new research on Mirror Neurons that has huge implications on how we connect with and understand others. An introduction to these can be found in Marco Iacoboni's

So what we have here is the same basic act, walking around the room. But the walking is utterly changed depending on what you were doing. Doing in this case was what you were thinking or paying attention to while you were walking. Think about this for a moment. Everything in your structure was changed simply by you changing what you were attending to: getting the book to the table as fast as you can, thinking about later in the day, or looking at the table and books and window.

We experience this phenomenon all the time. It is such a common fact of life that the significance of the phenomenon is mostly missed. What explains this experience?

Remember when we were looking at the moment when your system coordinates the response to stretch put on a myofibril? It happens so constantly it is really a constant sensory response situation. But for simplicity if you think of it as one moment, recall how the response to the stretch is always modified by what you want. So you can raise your arm to point across the room because you want to.

It is the same thing here. You want to walk and you are thinking about something else. You want to move that book to that table faster than you can. You want to look around. Those are different intentions layered on to the basic action of walking. Your system is in an utterly different coordination in each one. While I haven't been able to measure in all the ways I'd like to, when you rush it is not just the neuromuscular system that is in a different coordination, you also have different chemistry coursing through your system than when you are thinking of something else or just looking at the room. Depending on what else you are thinking about, a pleasant memory or fantasy or a worried memory or future fantasy, you will also have a different chemical response, as well as a different neuromuscular response. If energy observations are true then I imagine if someone could see your energy field it would also be quite different in each walk. YOU CHANGE, ALL OF YOU.

This insight about the coordination of our system in any given moment is so simple and so profound and so ignored.

You are always in every split second of your life in the perfect coordination of whatever you are up to with your attention and your thinking. It may not be efficient from a bio-mechanical point

of you or healthy from a mental health point of view or useful from a skill acquisition point of view. But, barring disease, your system is working in a whole integrated way at all times unless you interfere. Even then the system attempts to coordinate despite interferences.

If this is true then what is our strategy for making change when we don't like what is occurring?

***Value Register* – Our inbuilt Navigation System**

We go about life not really noticing ourselves. When things are fine we simply go about our activities. It is only when something isn't quite right that we are awoken to ourselves. We might get a pain signal or we might feel emotional discomfort, fear worry, any of millions of ways we sense that what is going on isn't what we want. Our system has built right into it a way of valuing our experience. It is as if we have an inbuilt "*value register*" as Gorman describes this property of our being.

This *value register* has a bias. When things are fine or high value we don't want to change anything. "I'm having so much fun. I better leave." Isn't generally what we do. On the other hand when we have a low value experience we tend to want to change it immediately. "This hurts. I'll move." "This room feels unsafe. I'll leave."

It essential to have a well functioning *value register* to navigate through life. On a basic survival level it is more important to be able to detect and remember danger than not danger. "That Saber Tooth Tiger scares me"- low value moment; "Get out of here"- fear response; "When I see that rock in the future I'll get a fear signal to remind me to be weary of the tiger that lives near here"- memory that will stimulate a low value moment that will wake you up so you don't go past the rock or go cautiously past it.

With the value register in mind we can reframe the question asked above. When we detect a low value moment what do we do?

Very often we just do anything to change the moment. Often this works just fine. Feel the heat of the stove. Move my hand. But, when we find ourselves making the same "correction" over and over again we might want to look more closely at what is going on. Gorman has an important article about this called *The Rounder We Go, The Samer We Get*. See Appendix. This article changed my life. It describes the circular nature of habits and how to get out of that cycle. It presents a first step in answering the question about what to do when we don't like what is occurring. We'll keep looking at that question from different angles. Because answering the question is how I can demonstrate the actual implications of this *coordinating suspension system* point of view.

For the moment in the context of the Coordinating System material a key point about the value register property of your system is to show you that you are always being flooded with information about your experiences. You have a signaling system. The signals are your sense of value – low, neutral high, in any given moment. When the signal is of low value we call it a symptom or a problem or an issue.

The key to using this innate signaling system is to detect and accurately understand the significance of the signals. As we saw in the structure section a person can have a strained orientation and never interpret that tension as problematic. It may have felt low value at one moment but been ignored so long the signal is there but the meaning is lost. The meaning that if understood would guide a person out of the orientation that over time is causing injury/tissue damage like osteoarthritis for example.

An Example

I worked with a man for just a few minutes at a conference.

He had severe pain between his shoulder blades. He had habituated the instruction “pull your shoulders back.”

He was actively pulling his shoulders together in the back in order to stand up “right.” He no longer had to think about it, that coordination happened as soon as he was not lying down.

It took me some time to get him to stop pulling his shoulders back.

When he did succeed he felt immediate relief. “Wow my shoulders don’t hurt.”

Then in a second he pulled his shoulders back again and said; “But that’s not right”.

I asked “Not right by what criteria and whose authority?”

It turned out a health professional who had helped him with his back pain had told him to stand up straight and pull his shoulders back to prevent further back trouble. Because this was a man he trusted and regarded as an expert he followed the advice despite the signal from his body that it hurt to do it. “I just have to get used to it and then it won’t hurt” sort of thinking.

I wasn’t trying to tell him a new way to stand. I wanted him to understand why it made sense he hurt when he did that imposition of pulling his shoulders back. The only reason shoulder blades move back toward the spine is when we reach back behind ourselves. It is a natural movement for reaching back. But to impose the holding shoulders back, especially when most of our arm activity is in front of us, is a grossly strained position and distorts all the natural flow of forces thru the body.

He hurt because he was imposing a holding that focused forces on parts. He didn’t have a “bad upper back or bad shoulders”.

He had a fantastic body that was shouting out to him to stop interfering, to stop holding. But he ignored the shout.

It wasn't my job to tell him what to do. I only wanted to give him some information about his structure so he could have useful criteria to decide what he wanted. He could choose to pull back his shoulder blades and be in pain but "right" by this understanding of the health professional's criteria. If his criteria was not to hurt and be injured he would simply have to stop pulling his shoulder blades back and need to learn a bit more about how his system works. But it was up to him to decide.

Pedagogical implications-the significance to life

There are major pedagogical implications in this story. When we see this from the *coordinating system* point of view we first want to make sense of why there is pain.

Why does it make sense the man hurts where he does?

We know the system is fine (if we don't we recommend we'd diagnostic tests). So in this case because of my understanding of the suspension system I could see as he stood and walked there was a focus of forces in the area of pain.

The next question is:

Why does it make sense the person's system is in that structurally damaging orientation?

Since he couldn't feel what he was doing I helped him come into a different orientation for a moment, but only so he could, for the first time in years, feel what he was actually doing. The point was not to say here is a better way to be if you don't want to hurt. It was to help him accurately interpret the signals his system was already giving him.

Side note:

You can't do "right" or "well" or "better". You can do specific actions which you can assess to see if they are an improvement. You can sing more in tune or walk over the center of support. Those are specific intentions. Many people are in trouble because they don't have anything specific to do or any real criteria under their idea of right, well or better. It is often some vague territory that as best as they can tell just isn't what they are currently doing

In his case it made sense he was holding his shoulders back because he was trying to do what was "right" based on his understanding of what an authority told him. He was, in fact, trying to hold his shoulders back and his system let him despite the imposition on the structure.

When he could understand the effect of this on his body and also feel the relief he began to question his idea of "right". Once we could talk about what criteria he might use to decide what was "right". He could make an informed decision based on actual criteria not some general vague idea called "right".

This is key. As a teacher I know people take a way from a lesson their idea or interpretation of what I am saying. This interpretation can be the opposite of what I meant. That happened more than once in my old way of teaching. I find

there is so much less room for misunderstanding when the goal is to have a person gain their own means for making choices rather than me telling them the best way to move or be.

This approach can be challenging because many people in pain just want someone to tell them what to do so they won't have it. This step of inviting them to claim their own authority is sometimes seen as a waste of time or as too much work. But when someone actually sees the result of this principle they are usually deeply relieved, because as a person gains their own means to make choices they are liberated in the truest sense of the word.

The astonishing thing is that the means to that liberation is built right into each of us. We often just don't know it. Experiencing that moment of your own value register guiding you, your inner guidance so to speak, can be a profoundly spiritual moment for people. It is at the same time totally mundane and ordinary. That common sense ordinariness is what is awesome.

If you begin to perceive and take a moment to accurately interpret the signals your system, your value register sends you, you are now listening to your inbuilt compass. Could it be that your system is so amazingly designed it has built right into it a means for you to assess your experiences, your way, so that you can choose what is "right" for you? Is it possible that your internal authority may be more accurate and more useful than any external authority?

The only way to truly answer these questions is to act as if this might be true and see what happens. What if you took a year and listened to yourSelf?

As we move forward with the picture of the nature of your system we will look more precisely at how to "accurately interpret" your system's signals. We'll address aspects of this like how to include other people while retaining your integrity.

Back to the Coordinating System-another example:

Recently I spoke with someone who was having some upper back and neck pain. She was told two things by a medical professional: 1) When many people get older their heads pull forward putting more stress on the neck and shoulders. 2) He showed her an exercise to tuck her chin in and pull her head back to counteract the forward pull.

Let's look at these two points of view. Perhaps there has been a study done to show many people's heads pull forward as they age. Certainly not everyone who is in her early 50's, as this woman was, has a pulled forward head. The way it was presented to her was as if this is just one of those random things that can happen to anyone just like tripping and falling. From that perspective it makes sense to do a counteracting, hold back the tide of the forward progression exercise.

Let's look at this from the coordinating system point of view. The woman showed me the pull back exercise and then proceeded to show how this brought her head more centered on her spine. Then she continued to talk to me, forgetting all about her head position as she spoke. Almost immediately her head was in the forward orientation again. When she paused in talking for a moment her head went back to center and when I began to talk it stayed centered for a

moment and then pulled forward again as I started into a subject that was a bit new to her. She was not aware of the changes in the orientation of her head. The changes just seemed to happen to her.

What is going on here? We did some work together at this point and it became clear that she was up to two things underneath the simple act of speaking and listening. She was trying to connect with me; that very ingrained moment of connecting with me manifests in the head pulled forward relationship.

I use this example because it is such a common phenomenon with people. In fact many people are trained to make connection, show compassion, show they are interested, by narrowing their attention over into the other person. Actually narrowing our attention into anything else another person, the book you are reading, the computer screen, generally manifests in that familiar head forward orientation. It isn't some problem with the weight of the head as you age. In the case of this woman it certainly wasn't about her old, heavy head. When she could experiment and see that she was already in connection with me simply by our proximity, our mutual intention to converse, easy eye contact, spatial relationship, and a multiple of other signals that indicate our ability to communicate together, then the whole idea of an extra act a person needs to do to connect is on shaky grounds. We will look into this in greater detail. But leave it to say that when she did not add an action of connection "called trying to connect" but instead could see she already had a "connection" with me, the head forward lessened.

Her problem wasn't her bad, old, weak neck it was the misunderstanding of how connection with another person occurs. If she can sort that out then her head is easily up and over her body in a less strained way then when she is up to "trying to connect".

For the sake of true understanding I suggest you not believe a word I have just written. Instead disagree and test this out. When I was first presented this material I had two reactions. One was incredible relief because the *Coordinating System* model explained so many problems I was seeing in my students. It also explained why the work I was doing at the time was only useful for certain people. The second reaction was a bit like panic. If this is true I'd have to change so much of what I do. So I started exploring this with great skepticism.

As I write this I am aware that this theory that we are always in the exact coordination for what we are up to has not been fully studied. It can easily be examined in everyday life. When I read studies looking at different aspects of human performance I see how often the researchers are missing a major piece of what is occurring because they aren't seeing the foundational coordinating organization. (need

Here are a few ways to test this out.

1. Go about your life as you normally do. Hopefully at some point you will find yourself in a position that you don't like, this could be feeling shoulder tension or noticing your head is pulled forward into a computer, a low value moment. You are looking for a way of being that

The distinction between what you are *doing* versus what *happened* is an extremely useful tool in a teaching situation. As the teacher you will often notice a symptom or something you want to change in a student. This is what *happens* in a student. What happens is a symptom of something. A symptom of what - is the question. What *happens* is the result of what a student is *doing*. If we can discover what the student is *doing* we can answer this key question- a symptom of what? You, the teacher, don't have the information about what the student is *doing*. Only the student has the information about what she is *doing*. Sometimes it takes a bit of questioning to help her discover what she is *doing* that explains or makes sense of the current coordination or the current effect that is being observed- what *happened*-the symptom you are seeing.

What a person *does* is the intention. The intention determines the person's attention which in turn determines the whole system coordination. Intention can be teased apart into quite subtle aspects. The immediate overt intention of someone might be to sing. But in a moment when the head launches forward, if looked at quite closely, a flash of wanting to sing well may have entered her thoughts and underneath that is an implicit intention to be liked which manifests in to trying to sing well or even trying to connect. All these subtext intentions have powerful effects on what occurs in a person. The problem for the singer isn't the head jut or the jaw tension it is a problem within the underlying intentions. Like the student in the story above whose intention was to connect.

In hundreds of explorations of these kinds of situations it seems to be true, subject to further proof, that when the coordination, when the *what happens*, in a person is not what they want to have *happen*, there is generally some kind of misconception of how the world works at

you have identified as a somewhat negative position or feeling. It may take a bit to catch your self like this.

2. When you find yourself in this low value way don't change yourself immediately.

Our tendency is to want to change the unpleasant feeling, make a correction. (Correcting yourself can be such a habit it may take a few times to stop that reaction. See the *Rounder We Go* article in the appendix).

3. In any case ask yourself: Why does it make sense I feel like this or am in this position? Is this just some random aberration of a fundamentally not well-built system? Or could my system being working perfectly at this moment?

If so what was I just thinking about or attending to that could explain my "tension" feeling or position? What was I *doing* when this feeling *happened*? (see side bar below) If I didn't decide to be in this position or have this feeling or tension does it make sense to change it? When I do change it how long does it last? What would happen if I changed what I was up to that created the position or tension? How would I find that cause? It was this kind of wondering that began to change everything in my life. I didn't understand the full picture. But, I was intrigued by the possibility of a coordinated functioning.

4. See what you discover if you look underneath the moment of the symptom.

David Gorman stepped back to look at the overall functioning of the human system. He named and articulated this *Coordinating System* model. He had been an Alexander Technique teacher, a type of work that people come to when they have postural, tension or other physical problems. While that work can and has helped many people over more than 100 years, it also misses or exacerbates some kinds of problems. Gorman eventually left his work in Alexander because as he more and more clearly explored what was underneath his students' issues he

developed a systematic approach to helping them. He calls this work LearningMethods. It is an approach that directly helps uncover the implicit intentions and misunderstandings that are at the root of many *problems, low value moments*. LearningMethods is designed to teach you to solve your own issues by using information that is available to you from your own experience. It is a method to help you learn from your experience in a precise and systematic way.

I hesitate to use the word problem. While the person inside a “problem” feels their current experience as problematic, once the “problem” is investigated it often becomes clear that the problem or the root of the symptom was some misconception or conflict with the way things work. It makes perfect sense that the particular misconception expresses with that particular set of symptoms. LearningMethods is a perfect and powerful tool for Human Compatible teaching since the end result of this method aligns people more and more with the way the world and their system works. It also gives them their own authority.

This handbook is not about LearningMethods per se. In this section I will clarify a few common misconceptions that tend to underlie many problems for people. *The Good for Whom* article and the *Coordination of Beings* articles in the appendix address some of these common misconceptions. These misconceptions which were revealed through the LearningMethods work.

LearningMethods sets up the conditions for the three pillars of learning that Leon Thurman articulates based on brain research. The conditions for optimal learning are: 1) Empathetic relatedness 2) A sense of autonomy 3) A feeling of success.

The role of the teacher in

LearningMethods is in a large part to understand the student’s point of view. It is by its very nature creating a sense of empathetic relatedness. The goal is for students to have the means to help themselves. The goal then is autonomy. Students learn tools to assess and experiment. In this way success includes

After years of work and helping hundreds of people it began to come clear to Gorman that there were just a handful of primary misconceptions that caused most people’s issues. It is important to note we are not talking about medical conditions, disease and other biological, physiological or neurological causations. As I was first introduced to this material I would often say “But what about a case when someone is” I was always trying to find the rare exception. By doing this I missing the boat about the huge territory to which this way of seeing human functioning could be useful.

This is not a panacea for all distress. It is a way of understanding human functioning and a method based on that functioning that clears up huge

gaps in many ways of approaching human issues that don’t clearly understand the way our system coordinates our intentions, our every moment.

Communication – A lifetime of Vocal problems

Ever since I can remember I had a somewhat hoarse voice. It only became a problem for me when I was in my early twenties living in south India studying dance and singing. My singing teacher lived around the corner from where I lived. I went for lessons twice a day in the

morning and evening. When my voice began to give out, I could hardly make a sound, his well meant advice was to come more often. So I came in the afternoons as well. As anyone who understands voice injury this was the absolutely wrong thing to do. I lost my voice completely for a time. Luckily I was also studying another Carnatic instrument so we switched to that during my three visits a day. I worked with him for three years. He was a gem of a human being, who didn't know anything about vocal health. When I returned to the States. I went to see an ear, nose and throat doc who scoped my throat. I was told I had bowed vocal folds. This meant my vocal folds didn't meet together when they closed like two bows meeting rather than two lines, hence the breathiness in my voice. That is what I was told and the understanding I went away with. I went to a few voice therapy sessions and then looked for voice teachers. To make this long story shorter, I ended up deciding to train as an Alexander Technique teacher. F. M. Alexander had had vocal trouble at the turn of the century. In trying to solve his voice problem he had insights into human functioning and developed a method to help people change habitual patterns that were interfering with their functioning.

I entered the three-year full time training program required to become a Certified teacher of the Alexander Technique. My voice problems lessened through that work. The primary aspect of Alexander Technique that helped me the most had to do with pausing before I verbally reacted to stimulus. In Alexander jargon it was the principle of inhibiting my responses, pausing. I used to say Alexander saved my relationship with my mother. But in all honesty if I was teaching a group I would quickly become hoarse again. In fact there were multiple situations that would find me in vocal trouble.

It wasn't until I worked with David Gorman and LearningMethods that things began to fundamentally change for me. In a workshop with Gorman I brought up my voice problem and said one of the frustrations for me was that as an Alexander Teacher I knew that it was damaging to pull my head forward when I spoke. I didn't think I was doing that but when I saw pictures of myself speaking or asked others it became clear despite 3 years of training and 13 years of teaching I still had that habit. In my conception at the time I thought I should be able to prevent or inhibit that habit, keep my head back and speak. I just wasn't good enough at the Technique yet.

As Gorman worked with me he asked me a series of questions. It wasn't long until it was clear that right there in the conversation I was having with him at the workshop I was in that head forward habit. Gorman began to find out what I was up to as I spoke. He wasn't trying to teach me to keep my head back. I had tried that for 16 years. He was trying to find out why it made total sense that my head arrived forward when I spoke. One of the first clarifications he revealed was the flaw in my idea that if only I was just better at Alexander I would indeed be able to keep my head back.

He asked: Was I actually telling myself to move my head forward?

BL: No I wasn't.

DG: If I wasn't moving my head forward directly by telling myself directly "now I'll bring my head forward" does it make any sense to bring it back?

BL: But my head is forward so sure I can just bring it back.

DG: Does it stay back?

BL: No, not for 16 years anyway. But I just haven't got it yet.

DG: If you can see that you didn't *Do* the head forward but it is *happening* we just need to find out what it is you are in fact up to that explains how your head ends up forward. (See side panel page 26 for more on the do vs. happening distinction.)

BL: OK

DG: So right now as you are talking where is your attention?

BL: On you?

DG: Roughly speaking about how much of your attention is over toward me?

BL: All of my attention.

This questioning went on in some details. The first major area that was revealed was that as I spoke to him I literally narrowed my attention up and forward into Gorman. Anyone whose attention is so narrowed has a similar forward head tension orientation. That forward head tension orientation is the coordination of narrowed attention.

That was revelatory in itself. The crucial question became why am I a narrowing my attention over into the other person. Put another way since I didn't decide to narrow my attention it just *happened*. What was I *doing* that expressed in that narrowed coordination?

Here again Gorman was vigilant with the clarity that I was the only one with the information about what I was *doing*. In hindsight I realize I had had many friends and teachers who had seen something about my attention as I spoke and had given me advice on what they guessed I was up to. "Babette take your time" as if I was in a rush or "trust yourself" as if I was trying to prove something. In many ways they were close but were missing the skill and the insight to get the information from me by asking me in a precise way what I was *doing*. That skill would have saved years of circling the issue. In that circling I was always trying to either fix the symptom or add something, like trust.

As Gorman asked questions that took me underneath my narrowing it boiled down to **I was trying to make sure Gorman understood me.**

So Gorman helped me look at the nature of how understanding occurs in people. This is the key moment in LearningMethods when the teacher's role changes from pure investigation to sharing facts and understanding of how things work. It is the moment when the misconception is revealed. The misconception doesn't often seem misconceived to the person with the misconception. So in my case I didn't notice any problem with wanting to make sure the other person would understand me. In fact it made perfect sense. If you are talking to someone wouldn't you or anyone want to make sure the listener understood you?

So Gorman asked: Where does understanding occur?

Seemed like a weird question to me. You or the listener is the one that understands what I am saying.

DG: When you were speaking to me just now, where you very clear that the understanding occurs in me?

BL: What?

DG: When you were speaking were you clear that the actual act of understanding is happening inside of me?

This is when I began to get confused. What was he talking about? But as he kept at this it became clear that while I was talking I was narrowing right over into him. It was as if I was over there inside him. As if I could just go inside him and "make sure" he understood me.

This leads to another area of looking at the nature of understanding. The listener may or may not understand what I am saying. Because understanding occurs in people based on their way of thinking, their past experiences, their openness at the moment and a whole host of other contributing factors. The primary misconception that was trapping me was the idea that I could "make sure" of an out come. In this case "make sure" he understood me.

There was no problem in wanting another person to understand me. It is the common purpose for communicating. The problem was in thinking I had control of the other person's understanding. Understanding is a response that happens over there inside the other person.

There is much I can do to make the chances more or less favorable for the other person to understand me. There are real actions I can take like speaking clearly and at a medium pace, knowing the information I am sharing, having a clear order. But no matter how clearly I present what I have to say I cannot guarantee a result, an understanding, in the other person.

It isn't a problem to want someone to understand me as long as I am clear I cannot *make sure* or in any way go over into him to influence the result. All I can do is develop my speaking skills.

As this material unfolded I did a few experiments right in those moments attempting to speak without that *added making sure Gorman would understand me*. At first I felt like I was miles away from him, a dissociated kind of speaking. Yet Gorman and the others in the room didn't in any way sense I was removed.

What I had to do to explore this was to speak *knowing that it was possible that Gorman wouldn't understand me. It felt like a risk*. Yet there isn't a risk at all. It is in fact, a fact when I speak he may or may not understand me.

Phew, not only was there so much less pressure in my neck and body as I spoke with this foundational idea changed, I began to feel a huge wave of relief. I was sitting over here in my chair, a fact. He was over there in his, a fact. Air was taking my words in to his ears. He would or wouldn't understand me. But once those words left my lips there wasn't anything I could do.

Needless to say after this initial investigation, I explored many aspects of what I was up to when I spoke, especially as it related to understanding. The amazing thing was that after a lifetime of being desperate to be understood for the first time I actually began to work on real skills to improve my speaking. I am not kidding when I say lifetime. I have kindergarten thru high school teacher comments that essentially said, "We know Babette has so much to say, we just can't really understand her". My desperation about it manifested in wanting to *make sure* I was understood, the coordination of which expressed as me with my head pushing over into the other person and often included speaking faster and faster and louder and louder. All of which impeded being understood.

Aligned with this desperation to *make sure* was an added effort of *trying* to make sure. Trying isn't an act in and of itself. We can do or not do. We can speak or not speak. Trying is an abstraction the coordination of which is always extra effort. My initial statement was "I was trying to make sure he understood me". Once the making sure misconception was cleared up I was no longer trying either.

The very things I was doing to be understood were the very things keeping me from being understood. Pushing over into someone with my body language often resulted in someone pulling back, faster speech was less clear and being louder was just plain obnoxious, the vocal effort caused a unpleasant tone and eventually hoarseness.

I didn't need to go into my family history, (although connections did come up in my consciousness and were interesting to explore. The history helped me understand how I might have learned the misconception but it didn't make the change in the moment when I needed it.)

- I simply needed to detect the misconception at the moment it was occurring.

- I needed to see how what I was doing at the moment of speaking was creating actions that interfered with my communication goal and also hurt my voice.
- My vocal symptom in the most literal way was a perfect signal to tell me I was up to a misconception.
- A misconception about the nature of human communication and what it takes to get a desired result.
- A misconception that I can't insure an outcome in another person.
- I can set up a more or less probable situation to get the result I want.

The other amazing side effect of researching from the symptom to the root from my own experience is that otherwise ignored signals became available to my conscious awareness.

- Now I can use those ignored signals, the strain and sound, as early warning signs that I may be back to trying to convince someone of something.

We seem to be flooded with all manner of sensory input. Our system only brings to our attention what we deem as valuable. Like riding a bike, at first you are taking in all kinds of sensory feedback and eventually you process it in such a way that it is mapped in your brain and you can have conversation while riding a bike. Skill acquisition.

What I've noticed about LearningMethods is a remarkable ability to tease out the minute details of the moment when the symptom is occurring. Many of those details only come up to the level of consciousness when we go over the moment precisely. It isn't guess work. It is as if the implicit intention flashes images that we respond to in a moment by moment way. So for me when I put the slow motion eye of LearningMethods on a moment of speaking I see "oh she isn't getting it" "I grab to go get her to get it." It is like a simultaneous flash I only know happened when I look back and link it to the moment I felt the grip. It happens so fast I never knew I had had the thought until I take it apart. This isn't hindsight or guess work. It is really a hooking up the felt experience-the moment I felt the tension- that let's me flash to the moment the implicit intention was made visible for second. Doing that exacting work gives significance to that little and in the past ignored grip. It has been reinterpreted by my system as significant. So now my system is more likely to bring that to my attention as I go about speaking. In this way a destructive cycle can transform into a productive cycle.

Amazingly enough I don't have to go around remembering to speak a certain way. Instead I carry on speaking but use the signals that come to me as guidance system. Since that initial clarification I have uncovered other ways I interfere with easy speech.

From Voice to Life – Broader Ramifications- Allowing Outcomes vs. making sure

The misconceptions I discovered during my work with my voice had ramifications to all areas of my life. The tendency to want to know and insure an outcome before it occurs is really the underpinning of *trying to make sure of something*. It could be having someone understand me or it could be making sure I don't miss a note in a song or make sure I don't make a mistake or make sure I get a goal. But the fact is, in this universe you can't know the outcome until it

occurs and you can't insure it in advance. No amount of *trying* will help. In fact trying has built into a doubt, as if unless I try I won't be enough.

What if we see how incredible our system is. We get clear of what we want and we allow ourselves to have exactly the level of understanding or skill we currently have and accept the results of these facts. If we don't like the results we can get clearer about what we want, get clearer of what we need to learn, and take action again. Over time we will gain more of the results we want without all the efforting and unspecific trying. We are now working with the principles of the universe-human compatible learning.

Getting comfortable with the possibility that we might not get our outcome is a huge step toward ease in life and performance. Oddly many people who are trying to make sure of an outcome are actually picturing not getting it. Therefore they want to try or make sure. If you ask someone precisely "what do you think the chances are of singing this song the way you want- 80/20% 50/50% what? It is often 90% and if it isn't 90% they might need to reassess the goal. With the chances of success cleared up it makes more sense to simply sing the song and find out if you get the note or remember the words. Trying and making sure are simply wasted, interfering efforts. As a wonderful voice teacher Jennifer Moir often says: "Sing this as if you are perfectly adequate to sing just as you are in this moment." Do that and find out. Address the results as they come. The whole process of learning and doing becomes a joy and profoundly self-confirming, on-going learning process.

This is really an introduction to a powerful understanding of what allows our system to learn and perform skills. The learning section will delve into this. But it is important to point out that unraveling one symptom, my hoarseness, led to realizations that transformed all my performing and teaching. Just helping people see the fallacy of making sure and trying and replacing that with actual clear goals that they realize may or may not happen can transform years of strain and disappointment in a moment.

I recently received an e-mail from a choral director who had taken a summer workshop. In that workshop we put up to question many sacred ideas in choral directing, one of which was the need to teach breathing. I said the only way to find out if you need to teach something is to take the risk of doing something different and assessing the results. If it doesn't work that is just as important information as if it worked.

Here's what she reported:

I have also changed my vocabulary in the classroom to do away with "try," "make sure," "be careful," and so forth. My students are enjoying this and so am I. I have not said anything about how to breathe or how to sing, but simply allowed them to breathe and sing. And guess what? They sound beautiful. I now think that I was "trying" too hard to help them with their sound production and I was sending mixed messages with my words and body language. Not only are they freer, but I am, too. I still have a long ways to go, but I am definitely on the right track.

Making Connection-The Head Forward Issue - A group of Physical Therapists:

Over the years I have worked with many people who have come to me because they have been told or have noticed themselves that they have a head pulled forward pattern, just like the one I was dealing with in my voice issue. Sometimes that pattern manifests in shoulder tension or pain. It is really a total coordination just the most visible shape in the body is the head out forward of the torso.

While the over all coordination is similar with most people the reasons people are forward are very different. I conducted a class with Physical Therapists in which a large group of them had this head forward pattern. They also had symptoms like fatigue and headaches after a day of work. As we investigated what was going on it turned out many had been trained to “connect” with their clients. They were actually told to lean into their clients to show they were attentive, to make rapport.

We began to address this by going underneath the concept of connection. What was the actually goal with this idea of connection? They agreed it was to set up a situation in which clients felt safe and comfortable because the work goes better when that relationship or rapport is established. So we began to look closely at what conveys a safe sense of relationship/connection.

The first area was just to help them see that pulling themselves off balance into that strained orientation might be creating their objective of connection but it was harming them in the process. Each person could feel the strain and imbalance as we explored looking and talking to another person with that “connecting” coordination vs. remaining centered over their support, balanced as they spoke. But this step wasn’t to teach or direct them to do the balanced sitting position instead of the pulled forward habit. We did this to simply open the question: Is it worth getting what you want from another by hurting yourself? Certainly some people would say a resounding yes. Which was surprising and interesting itself for the group.

The next question became is the head forward actually giving you what you think it is giving you? Is it connecting or creating rapport? Connecting is a *code word*. A code word in LearningMethods is a word we use but don’t often really know specifically what we want or mean by it? Identifying a code word is one of the tools of LearningMethods. I find it invaluable. Often I may not be familiar with a situation I have been asked to help someone navigate. In fact this workshop is an example. Before that I hadn’t realized that patient-therapist relationship training included this “how to make rapport” aspect and that connecting with a client was a goal in and of itself. So identifying the code word “connecting” revealed all kinds of information that helped us sort out the situation.

When I asked the question what do you mean by “connecting” it was a real question. I wanted to know what their goals were. Was this the only way to do it? Was it actually giving them what they wanted? The general goal was to as quickly as possible establish trust so the patient

would feel comfortable to work. Under establishing trust was showing that you are interested and listening to the patient. (Trust is another code word that is often very revealing when taken apart. But for this purpose I'll stick to connecting.)

We began with a most simple level of looking at connecting. The very fact you are in proximity to another person means there is some sort of communication occurring. Clearly under the code word connecting they meant in a positive, supporting successful communication sort of way. But to just say from the start the very act of being in the same room is an actual step in this connecting was important. Another aspect of human communication is eye contact and facial expression. Are you looking at the person with an easy open friendly expression. Then there is your tone of voice and body language. We are in a sense breaking down all the aspects that make up one moment in communication much, (about 94%) of which is happening in the other than conscious level. In the training in which the lean forward was suggested it was emphasizing just a portion, the body language part, of human communication. In some ways the training was actually misunderstanding what leaning into another person conveys.

Someone may have watched people communicate and noticed several people who tended to go over into another person to talk or listen as "good" listeners.

But when you think of it for a moment what would be the simplest and easiest way to show you are interested? It would be to actually be interested in your patient. You don't in fact have to do some separate act called showing interest. When you are interested your system will generally orient naturally into all the things we identified: eye contact, facial expression, body orientation, alive tone of voice when asking questions.

In a sense they had been trained to make sure they connected. But as each person sat with a pretend client and compared the trained "connecting" with simply allowing the connection to occur since it is already occurring, they felt waves of relief. Certainly it might take time for each of them to trust that this lack of effort was actually enough to be in connection. But the old way was clearly causing the therapists many problems. It would be up to the therapists to experiment and find out what was necessary to create a conducive environment for their patients. Could they find a conducive environment that included themselves. So in the end the therapy environment would be conducive not just for the patient but for the therapist as well.

Learning

The premises upon which Human Compatible Teaching is based are drawn from the vast on-going research about the nature of human learning. Simplified here are a few foundational ideas:

1. Humans are innately learning creatures

2. Humans learn by taking “target practice”- (see box page 10)
3. An optimal learning environment has three key ingredients: empathetic connectedness, students feel autonomous,, students feel successful (see box page 27)
4. In physically coordinated activities humans function as a whole in which attention and intention direct the coordination. The learning process becomes one of Intentions/Action/Assessment/Refreshed Intention cycle

There are many other layers to learning including socio-political issues, disability issues and so forth. This section is in no way intended to be a comprehensive survey of “learning”. Instead I bring out the key principle of learning I have found useful & practical for many teaching situations.

Skilled Learning vs. learning from life

The first part of this handbook looked at basic human action like standing and bending. You would have to interfere with a baby to keep it from coming to standing and learning to walk. This isn't a skilled activity in a sense. We are innately learning creatures.

There are other activities that we call skilled activities, playing sports or an instrument, activities that generally aren't innate. But the means to learning a skill is built into our system. The more accurately we understand our skill acquisition system the more targeted we can set up the conditions for acquiring that skill.

There is research going on in many areas of skill acquisition. Most of it seems to be aligned with the fundamental premises of the coordinating system even though it is not articulated in those terms. Taking the research and then applying what was discovered to actual teaching or training is the area in which LearningMethods and Anatomy of Wholeness excels. It is where we have the greatest contribution to make.

The implication of the idea that our system is designed to coordinate action based on our intention has profound implications for skill acquisition. Let's go straight to a specific example.

I often work with choral directors and voice teachers. Almost across the board in the vocal field there is the belief that voice teachers and choral directors need to teach breathing. It is seen as one of the pillars of vocal training. How breathing is taught is in no way consistent across the board. In fact when I have people come to me for lessons to deal with their tension is singing they often express total confusion about breath. Every teacher they've had gave them a different idea. Each one believing his/her way was the best way to think of breath as it relates to singing. Most with great intentions and good will. Most teaching their idea rather than giving the students a means to assess for themselves what does or doesn't help singing(refer to page 22).

Breathing is automatic. Your system is hard wired to breath. Certainly we can interfere with breathing, hold breath, try to initiate breathing from different places, control it. Breathing is also

one of our best barometers for our state of being. It changes when we're afraid, relaxed, eager and so forth. If you want to shout for your dog or talk quietly so only the person next to you can hear you, your system will give you exactly what you need in terms of breath. You don't have to say "Now take a big breath." In fact generally the only time most people have breath problems, other than sickness or conditions like asthma, is when they decide to breath a certain way or are taught to breath or have their attention directed to their breath.

I'll give an example with a specific student. He came in as a beginning singer who felt like he was having trouble breathing. This session represents hundreds of sessions I've conducted in which the overall gist of the concern is "I don't have enough air for the phrases I want to sing." I asked him to describe when he actually noticed his trouble. He said it came up in certain phrases of songs when his breath just seemed to peter out before he got to the end of the phrase.

I asked him if he could show me this. I asked him to bring out his music and sing and when the problem occurred to stop singing so we could look at it closely.

He pulled out his music and began to sing.

When he ran out of breath on a phrase he stopped.

I asked him how it went.

He said it was the same issue.

So then I asked what was he attending to as he sang.

He described that even just looking at the music reminded him of his breathing issue.

He said he was trying to make sure he got enough breath, especially right before the phrase.

I asked him how he made sure he got enough breath.

He talked about opening up low in his belly and quite a few other details.

I talked with him about his many ideas about what he needed to do to breath.

While he gave lip service to the possibility that his system was designed to breath he felt strongly that he needed to assist in breathing when it came to singing. Yet so far his assisting wasn't reliable. He had the sense he just didn't get it yet.

I once again brought up the possibility that his system was designed to give him enough breath for tasks whether that's swimming under water or shouting or singing. Of course there's a limit but the phrases he wanted to sustain breath on were within that range of human capability.

Since his attempts to assist his breathing at best weren't reliable I asked if he would be willing to do an experiment.

He said "yes".

I asked him some questions about the music like:

- What was he singing about?
- What was important to him in the music?
- What was his purpose for singing?

It surprised him that he had some trouble answering these questions. He realized he'd been so caught up with having enough breath/running out of air he'd really forgotten his purpose and other important aspects of the music.

This is a common tendency when someone detects a problem. S/he can lose sight of the bigger picture and get fully trapped in the problem.

We recaptured some of the details of what he wanted with the music.

I asked him to put his attention on the music and what he wanted musically. When he began to notice the fear about the breath rise up in him I asked him to remind himself that in this case whether or not he gets enough air is unimportant. He may or may not have enough air for the phrase.

He began and stopped himself immediately because he felt his fear about breathing rise up.

I asked him to reestablish his focus, remind himself breathing didn't matter in this moment.

He began again.

When he finished he had a rather startled look on his face and said "That was weird."

I asked "How so?"

He said "The whole thing was easier and I almost had enough breath."

I said "Notice what that experience might tell you about your system and what you've been up to. Here you were not attending to your breath and it was no worse and possibly better than all the trying to breath right that you've been doing. At the very least this might tell us that however you are trying to help isn't actually helping.

Student: " I know and that's why I want to learn to breath right."

BL: "Well in this experiment you didn't think of breath and it happened. Could it be that your system knows how to coordinate the billions of bits of information necessary for the act of singing better than any imposed ideas we have to try to control the details? Could our system be designed to control the details and our job is to be clear on what we want, in this case the song and the arch of the phrasing?"

Student : "That makes sense but how do you do that?"

BL: "Start again being clear of what you want in terms of the music. See the length of the phrase. Your system is actually quite capable of sustaining the release of air for the length of that phrase. But it hasn't had enough easy goes at it to learn the coordinations just yet. So let's just give your system time to figure it out. So start anytime"

He sang and once again he felt much greater ease in himself and the music.

I asked him what worked and also what would he like to be different.

He said the tonality could be better.

So I asked him to gentle intend more accuracy in the area he was less clear.
He sang.

He assessed.

He re-clarified his intention.

He sang again. All the while not much focus on the breath. But as no surprise after a few go-rounds he was easily singing the phrase.

The problem hadn't been with his breath. Perhaps the first time he sang it he ran out of air. Then he or his teacher focused on that "problem" and tried to fix it, which was done by manipulating his body, some detail of what is actually an entire coordination. Sometimes it just takes a few go-rounds for our system to learn new coordinations. There is nothing different to do when we don't produce what we want. We simple refresh the intention and give the system the time it takes to learn the skill to coordinate that particular intention. Skill Aquisition in a nut shell.

In this case it was his interference that was creating a vicious cycle that was discouraging him and making him feel like he wasn't a good singer. By finding the interference, his false idea that he needed to manipulate his body to sing, and allowing himself to let his system sing he began a virtuous circle of learning.

If you are a teacher reading this remember this is just one common example. There are other interferences with singing a phrase other than having enough breath. There might be moments when I have an anatomy book out to show someone how the system is made to breath. But the all to common tendency is to start with teaching breath even when there isn't any problem. It is almost as if we create problems that student then take years to unravel. Others who are teaching voice and directing choirs from this point of view are reporting amazing sound success and over all ease with the singers and are never starting with breath and rarely teaching it. What they find is students are singing well. The real bonus for the teacher is now they can get on to the job of teaching music and nuances of music.

Aside note on breath.

While this handbook won't go into great detail about the anatomy of breath. See Gorman's Anatomy of Wholeness book for that. There is an important aspect of ideas of breathing that I want to address. Because hand in hand with breath training is training in how to stand for optimal singing. In the past in voice training there has been a lot of emphasis on a slightly lifted sternum and directions like be a little forward on your feet. (Pick up almost any vocal ped book and you can see the list). This lift happens often under the code words "open up" or "stand tall" but stay free and don't lock your knees.

The result is generally a person ends up slightly off balance backward with the front of the body open and the back slightly squeezed. The knees have to lock to keep the person from falling over. The person then unlocks the knees and the pelvis drops.

Try it. Lift your sternum slightly. Notice the effect on the whole body. Knees tend to lock, the pelvis arches and so forth. But for breath the huge result is that the abdominals are over stretched and the lower back muscles gripped and the whole system is working to keep the person from falling in this subtle imbalanced stature. This makes breathing more difficult because the whole cylinder of the torso is distorted. Thus in order to get the breath a person needs to actually activate and work the abdominals. This is usually referred to as breath support. The entire lower abdominal idea of breath comes out of the misunderstanding of uprightness and the interfered with structure. Breath support is only necessary if you are out of balance and interfering with your system. This may be impossible to believe if you come from that tradition. I have demonstrated it hundreds of times.

If a person is easily upright without any lift or collapse and the whole cylinder is available in its naturally elastic state then there is no need of this idea breath support. The system is fully available to naturally give the length and amount of air necessary for the song.

Learning:

If we look closely at the process of learning it is clear in order to learn a skill we need to:

- 1) Have a clear intention of what we want to do - a target or bull's eye.
- 2) We need to take action, throw the dart. We go for our intention.

3) We assess what we did by asking:

- Is what I did what I wanted to do? If 'yes' then we simple carry on.
- If 'no' then we get specific.

How close did I come to my intention?

Specifically what didn't I like and what do I want?

4) We clarify and specify the intention.

We do it. We assess what we did. We clarify our intention. Intend Do

Assess Clarify Intend Do Assess Clarify.

We are now in a learning cycle. In this way our system is free to learn the conditions and coordination necessary for the desired task.

Step three of the cycle, assessing what we did, is the moment when many of us get off the learning cycle. Detecting that what I did, wasn't what I wanted is an absolutely necessary aspect of learning.

If I do something and it isn't on target but I don't know that it isn't off target I'll just keep doing the off target thing and never learn the coordination for hitting my target. NO Learning.

If I can recognize that I didn't hit my target and simple refresh and clarify my intention I learn.

Assessment-judgment is NOT the problem. Misunderstanding what the assessment means is the problem.

It is in fact an extremely important thing that I can assess whether or not I did or didn't hit the target. The uncomfortable "yuck" feeling commonly associated with missing the target is not a feeling to avoid. For someone who had missing the target aligned with being wrong and being wrong aligned with being a bad person his/her initial "Yuck" might have been outright terror. As s/he clarifies in the moment and begins to understand that the instantaneous detection of "off" target isn't a moment about his/her worth but instead is a healthy alert signal, like a smoke alarm, to say "hey there's something to here to learn" s/he can simply clarify the intention and learn. It isn't a feeling to avoid but the experience of detecting a "learning moment".

Being right or playing "well" as a goal is problematic in that they are vague targets. There isn't anything specific the system can coordinate around. We need to attach specific criteria to playing "well" if we want a clear intention to aim for and assess. If I say I want to hit the bull's eye then I have a clear intention. I want to sing in tune or with feeling vs. sing well.

I invite you to make an experiment that a violinist friend made with this learning as follows.

She wanted to see if she could actually learn a new piece with this approach. So she chose a piece to learn. She played it through from beginning to end keeping her intention clearly on the music. She registered when she didn't like what she was hearing. But she didn't attempt to change the playing directly. She accepted the fact of the quality of her playing whatever it was at that moment. She didn't try to play better than she was playing, or wish she were playing better (a misconception that often got in her way of playing). She returned her attention as often as possible to the music. She did this over a period of time without any expectation of how long it would take her to learn the piece. In fact she wasn't clear she could even learn a piece in this so simple a manor.

She was absolutely astounded how quickly she was playing the piece reasonably well. She had been trained to work small section and control all kinds of details.

Instead this process was asking if in the end I wanted to play the music through and be free to focus on the music, what would happen if I simply practice that from the start. The key and hardest part for her was to accept the off target sounds. To let herself play exactly the way she was playing and allow her system to improve in the time it takes to learn. She let herself take the time it takes to learn and oddly to her it was much faster than she expected. She has been doing this approach with her students for several years now and getting similar results.

(notes to myself: Adler and definitions, three ingredients, target practice; Temple Grandin – curiosity & association; Leon's ability/capability clusters, Intentions-learning cycle .)

Appendix

What follows are several previously written articles based on the Anatomy of Wholeness material and LearningMethods.

Good For Whom by Elizabeth Garren looks at performance anxiety and a primary misconception the befalls many performers or anyone caught up in what others think of them.

Coordination of Being – Conducting by Babette Lightner introduces the Anatomy of Wholeness material around the issues that come up with conductors.

The Coordination of Bliss by Babette Lightner looks at the way transcendent moments can trap us into never being okay with the way we are.

Beyond the Body – Back to Wholeness by Babette Lightner tracks Lightner's journey from dance to Alexander Technique to LearningMethods while explaining the advantages and flaws she discovered along the way.

www.learningmethods.com has many more useful and specific articles that track common misconceptions and demonstrate LearningMethods in action.

Adaptation to how you go about things.

Now if you have ten people with hands in sarcomere configuration they represent a single section of a myofibril. If all those ten people slide the fingers together it is as if a person is doing something that is shortening. Now four people pull out. We now have a six hand sarcomeres. These people slide their fingers so they are in the midway point. They are a shorter myofibril but all the sarcomeres have the more optimal relationship between the actin and myosin myofilaments.

The opposite is also true. If the person suddenly starts to be more and more active the sarcomere will be in the slid open/lengthened relationship which also isn't optimal. So the system adapts to the new level of movement which pulls on the sarcomeres by adding in a few sarcomeres and voila the sarcomeres get to be in that midway point again. The muscle is structurally longer having built more sarcomere segments. Adaptation works all ways to give you less length or more length. You are always in the perfect flexibility for the average of how you live your life.

Muscles adapt to the way you go about things. All your tissues do. But her is one way muscles adapt to your activity. If you suddenly change your life activity and are much more sedentary your sarcomeres will be more and more often in the slid together/shortened relationship. What your system does to adapt to the change in activity is remove a few sarcomeres and voila the sarcomeres are now mostly in their midway relationship again. You now have a shorter muscle. The structural muscle length has changed by this adaptation of removing sarcomeres. It adapts to average of your total activity. This fact has huge significance to the efficiency of exercises as a means to change versus change your habits. More on this later.

Adaptations for strength and for stamina:

Muscle also adapts to the demands you place on it. If you start to take on tasks that require strength like lifting heavy objects your muscle will build bulk, the bulk is adding protein bits, more stuffing. I don't go into detail here because it isn't so relative to the discussion. But it is important to note that you gain and loose strength based on your system's needs. Again you are in the perfect shape for the demands you ask of your body.

The other key adaptation, which is a somewhat recent discovery, has to do with stamina versus power or fast and slow twitch muscle fibers or slow fatiguing versus quickly fatiguing

fibers. This is the white and dark meat on a chicken. Dark meat is dark because it has lots of mitochondria in the cells and can create its own energy. Hence it is slow fatiguing. White meat is for speed and bursts of power but fatigues easily. A sprinter has fast twitch power muscles. A marathoner has slow twitch, slow fatiguing muscle fibers. For years it was thought that people are born with a certain proportion of these kinds of muscles. But it is now clear that there is adaptation on this level as well. It is a complex story but the key practical point is that there are certain conditions necessary to turn muscles into slow twitch or slow fatiguing muscle fibers. We have fast twitch fibers by default (evolved from fish who only need darting muscles). A muscle has to be activated and under stretch(lengthening) in order to change from a fast fatiguing muscle to a stamina muscle. This is useful information to help you choose how you go about your activities and exercise to invite the maximum result from your choices. Many people practice passive stretching, which not only doesn't stimulate the sarcomeres to lengthen it also doesn't stimulate the change to stamina tissue either. What it does do is over stretch the protective connective tissue and makes the muscle tissue more vulnerable to injury. Others tighten to stretch. They activate and shorten which not only doesn't give them more structural length (not adding sarcomeres) and doesn't invite the stamina tissue either. I have seen people who have "stretched" for years and never gained flexibility. Generally they have one of two things going on. 1) The way they stretch doesn't actually ask for lengthening. 2) The way they go about life is so shortened that the time stretching doesn't counteract the daily shortening.

As I often say "IF you want to feel flexible and free you actually have to live flexibly and freely.

It is important to note that all connective tissue adapts to the average forces placed on them. So ligaments, tendons all have adaptations they make. Bones also change form in the course of your activity over time. Many conditions seen as symptoms and problems are really what happens when your system is adapting to forces placed on it based on the way you go about things. If you function by putting excess and unbalanced forces on your feet, bone will build up which can then be painful. The same thing happens anywhere and is common in the neck and spine. **You are fundamentally an adapting being. every moment you place stimulus on your system to which your system adapts to allow you to do what you are doing, whether it is healthy or not. "You are the boss" as Gorman often says.**