# Developing Somatic Intelligence: Leadership and the Neurobiology of Embodied Learning

Amanda Blake, Master Somatic Coach

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# **Executive Summary**

This paper is an exploration of some of the psychobiological explanations for the highly effective Embodied Leadership™ approach to increasing personal and team effectiveness, satisfaction, and fulfillment. Recent research findings illuminate why this methodology, in use for over 3 decades, has such a rapid and dramatic impact on leadership presence, emotional regulation, and collaboration. I use the term "somatic intelligence" as shorthand for the enhanced abilities that Embodied Leadership™ produces. My aim is to explain how and why developing somatic intelligence enables one to go beyond gaining insight and good ideas to actually take new actions. While much more remains to be explored, this initial investigation reveals just a fraction of the current scientific evidence that supports working through the body as a powerful way to grow transformative leadership capacity. These conclusions are drawn from clinical experience coupled with a reading of the lay literature in neuroscience and other new sciences. I look forward to continuing the exploration with other members of the Neuroleadership Institute.

"Consciousness [is] a global phenomenon that occurs everywhere in the body, and not simply in our brains." Lynne McTaggart

#### Introduction

Ed Perry was already a highly successful leader – by his early forties he had built and sold two companies, one of them to Apple. When three of his most trusted advisors, none of whom knew each other, all recommended his next step to develop his leadership capacity should be to study with Richard Strozzi-Heckler at Strozzi Institute, he listened. During his training at SI, he stepped in as CEO of a failing company, turned it around, and grew it to ten times the size of his previous companies, as measured by both revenues and number of employees. And he accomplished this dramatic performance improvement *in less than two years*. What made it possible for Ed to take such a significant jump in his ability to lead – to literally increase the scope of his responsibilities tenfold over such a short period of time? We'll revisit the details of Ed's story in a case study at the end. For now it's enough to know that he attributes his success to the Embodied Leadership™ training he and his team engaged in at Strozzi Institute.

Embodied Leadership™ includes the physical body as a domain of learning, change, and transformation. Most leadership training – in fact, most education of all kinds – takes as a starting point the conveyance of new information, based on the premise that knowledge is power. Books, teachers, models, new ideas and simulations are all great places to start when learning something new. The problem is most training stops there. *And most learning stops there as well*. Once the book is shut and the teacher is gone, we head back to our lives, where we proceed to do things very much the same way that we did them yesterday. How many times, for example, have you learned a new idea and even *known* "what to do", but found yourself unable to actually *do* it?

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Most people are all-too-familiar with this frustrating and perplexing experience. That's because exposure to new ideas is necessary but insufficient to enable us to take new action. Recent research sheds light on why this is so, and exposes the limitations of purely intellectual learning.

## **People Get Stuck**

It's a familiar problem: being stuck with a stubborn trait, habit, or way of being that gets in the way of achieving objectives and just won't seem to change. It could be a tendency towards emotional outbursts, or perhaps towards a shy withdrawal. It could be a consistent hesitancy in the face of change, or a rush to action at the expense of reflection. It could be an inability to say no clearly and directly, leading to overcommitment and overwhelm. It could be a discomfort with making requests of others or asking for help. It could be many things.

Whatever the specific issue, it stands between you and what you want to accomplish. There's a gap between what you see as possible and what you're able to achieve. It compromises where you want to go, and for you to get there, it needs to change.

People typically respond to this problem by seeking out ideas about what to do differently. This makes sense: As we move through the world we tend to assume that success comes from understanding. Whether by reading; seeking out stories, best practices, and new models; taking a course; or engaging in coaching, in most cases attempts to take new action start with gathering new information, ideas and insights. Sometimes, this works. Too often, it works too slowly, or not at all.

#### How We Get Stuck

People don't get stuck because they are stupid, weak-willed, incapable, or any number of other perceived failings we beat ourselves up for. This is particularly true with respect to leadership capacities like emotional regulation, relationship building, and collaboration. Rather, people get stuck because emotional, social, and behavioral learning happens at a below-conscious level. Consequently, aiming to grow leadership qualities with an exclusively cognitive intervention is like archery without the bow. You might still hit the target, but you've only got half the tools you need to make it happen.

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The real driver of change – the "bow" of adult development – lies below the surface, and it starts with how we learn to operate in the world. The way people handle emotions and relate to others is shaped in large part by implicit memory. Whereas explicit memory calls up facts, figures, and events, implicit memory serves a different purpose. It extracts the trends, principles, patterns, and rules that underlie ongoing, repeated experiences in life. Humans are social beings; we live our lives immersed in daily experiences of relatedness. From this rich stew of ever-present social and emotional experience, the brain swiftly, unconsciously, and inexorably extracts the underlying patterns that dictate how to relate to our fellow human beings. Like the acquisition of spoken language, emotional learning, patterns of behavior, and styles of relatedness are not taught, they're simply absorbed. "Just as grammatical English emerges from our lips automatically, a structured pattern of relatedness emanates from each of us." (Lewis, et al 2000) Because each individual's life experiences are so unique, our ways of relating are marvelously idiosyncratic.

Implicit memory is the brain's sole learning component in the first years of life. Emotional learning and implicit memory actually begin functioning prior to an infant's birth, and well before either explicit memory or language takes hold. (Lewis, et al 2000, Siegel 1999) This early learning is crucial to a child's survival: understanding how to respond appropriately to the emotional cues of his caregivers is his only way to maintain the connectedness that keeps him safe and secure. By

the time language, and, much later, cognitive reasoning begins to develop, a child has already had many years head start on developing patterns of emotional response and relatedness.

Any system that aims to store information forms a material record, whether it be ink on paper, oil on canvass, or grooves on vinyl. In the case of human memory, the material record lies in the cells and tissues of the human body. Like other learning processes, the formation of implicit memory results in the strengthening of neural pathways and synaptic connections. Through the process of long-term potentiation, the neurons associated with emotional and social learning undergo physiological changes that prime them to be more likely to fire. (Lewis et al 2000, Sapolsky 2005) In this way, early emotional learning embeds behavioral

tendencies that literally become wired into the body and brain. Through implicit memory, formative experiences lay down persistent physical patterns that both impel and constrain social and emotional behavior. These patterns quite literally live in our biological, neural, and cellular structure. We each become biologically tipped towards certain behavioral strategies that made sense when early implicit memories were formed. In a very real way, the person that you are is recorded in the living tissues of your body.

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Implicit memory is an enormously useful apparatus for emotional learning. We shape ourselves around safety and belongingness, and the strategies we use to do so are recorded in the very fabric of our bodies and our being. This is both a highly intelligent and a rapidly efficient system for making sure we get what we need. It enables us to make complex judgments without having to stop and think things through each time. In our early childhood environment, it helps us organize to receive the most love, care, connection, and protection possible given our unique set of relationships with caregivers. This is crucially important to our survival and well-being.

But implicit memory also produces limitations. It is possible, for example, to extract erroneous generalities and conclusions from even the very best of childhood circumstances, not to mention the very worst. Even when implicit memory serves the person's best interest – as it most often does in early development – what began as a useful habit of behavior exquisitely tuned to one's early environment can eventually outlive its usefulness and become non-responsive to present time experience (van der Kolk, 1994). This has been well established in the field of trauma recovery and PTSD. However the same basic process applies to healthy adults when they are presented with a new challenge that requires a different way of relating. Given the rate of change in our society, few of us are exempt.

These patterns, built over years of immersion in one's own life, are highly resistant to change. They develop prior to language and reason, and outside of conscious awareness. They make up our very biology and identity, and we associate them with safety, love, and belongingness. No wonder they're so stubborn to change!

People rely on intelligence to solve problems, and they are naturally baffled when comprehension proves impotent to effect emotional change. To the neocortical brain, rich in the power of abstractions, understanding makes all the difference, but it doesn't count for much in the neural systems that evolved before understanding existed. Ideas bounce like so many peas off the sturdy incomprehension of the limbic and reptilian brains. The dogged implicitness of emotional knowledge, its relentless unreasoning force, prevents logic from granting salvation just as it precludes self-help books from helping. (Lewis, et al 2000)

Perhaps it's becoming clear why its not possible to think, reason, or talk your way out of certain troublesome traits. In order to change habits of being that limit effectiveness, you need more than just good ideas that speak to the intellect. You need to reach the highly sophisticated but inarticulate limbic and reptilian brains directly, by re-training the nervous system to develop new competencies, new actions, and new ways of responding to life's pressures and opportunities. For all intents and purposes, you need to build new implicit memories.

## Your Body IS Your Brain

We tend to think of memory – implicit or otherwise – as being housed in the brain. And naturally a good deal of the conversation about neuroscience focuses on the 3 pounds of grey matter inside the skull. So it would seem to make sense to look to the brain for clues about how to shift social and emotional traits.

In the rush to understand the brain inside our skull, what's frequently overlooked is that the brain extends throughout the entire body in multiple ways. To make the best use of the latest research on the brain and its implications for adult learning, leadership development, and behavior change, practitioners must also pay attention to the "extended brain" of the physical body.

The brain extends throughout the body in multiple ways.

It goes without saying that the brain and body are inseparably interwoven. The brain influences and is influenced by the farthest reaches of the body via the central and autonomic nervous systems, of course. But beyond that, new discoveries in psychoneuroimmunology, neurogastroerentology, and epigenetics lend further support to the claim.

For example, the enteric nervous system, popularly known as the "second brain" in the gut, contains more neurons than the spinal cord. It sends messages to the brain far more often than it receives them, and can function without intervention by the brain inside your skull. (Gershon, 1999)

Beyond innervation, neurotransmitters and neuropeptides have now been found in the immune system, heart, gut and connective tissue. (Pert 1997, Gershon 1994, Pearsall 1998) This establishes a direct neurochemical link between the brain and the rest of the body, beyond the previously known physical and mechanical neural pathways. Dr. Candace Pert, former researcher at the National Institute of Mental Health and the scientist who discovered the endorphin receptor, refers to these neuropeptides as "bits of brain" that float throughout the body. This and related discoveries have Pert saying "I can no longer make a strong distinction between the brain and the body."

Neuropeptides also play a role in the science of epigenetics, which examines how environmental factors initiate or inhibit gene expression. Dr. Bruce Lipton, one of the early researchers in this field, postulates that the "brain" of the cell – that which reads the environment and instructs the cell how to behave in response – is not the nucleus or DNA, but rather the cell membrane. It is through the membrane and its receptors that molecular messengers in the extracellular environment, including neuropeptides, deliver the information that determines cell behavior. It's not just neurons that are influenced by these "bits of brain," but cells throughout the entire body. The body is paying attention and responding to what Pert calls "molecules of emotion" on a noncognitive level every moment of every day. (Pert 1997, Lipton 2008)

Beyond these fascinating findings in a variety of disciplines, leading neuroscience researchers agree that the body is an important domain of learning, and that through attention, practice, and emotional engagement, the physical structures of the brain and body do indeed change. (Zull 2002, Merzenich 2009, Ramachadran 2007) These exciting discoveries in the realm of neuroplasticity demand that we rethink what learning is and how it occurs.

For instance Dr. James Zull has mapped brain functions to educational models, and concludes that brain structure matches the learning cycle described by leading educational theorists such as Piaget, Dewey, and Kolb. He agrees with those theorists, concluding that all learning begins with sensory input, and requires both practice and emotional engagement to take root. (Zull 2002) Dr. Michael Merzenich points out that "training changes brains." His research with aging adults and disabled populations has definitively shown that perceptual limitations arising from both normal and abnormal development are correctable through training. (Merzenich 2009) Dr. V.S. Ramachadran has also demonstrated this dramatically in his work with amputees. (Ramachadran 2007)

While some of this research is still in the stage of exploration and hypothesis, other elements have been well-established. Taken as a whole, the research cited above suggests there is a preponderance of clinical as well as scholarly evidence to support the claim that implicit emotional memory lives in the cells and extends throughout the entire nervous system and body. This is an area ripe for further research – especially since the clinical results of working through the body are so rapid, dramatic, and durable.

# Getting Unstuck and Going Beyond: Developing Somatic Intelligence

If it makes sense to pay attention to the art of changing neural pathways when developing leaders, as is the premise of the Neuroleadership Institute, then given these findings it stands to reason that including the rest of body must necessarily be a part of that – the bow for the proverbial arrow. Our biological heritage precedes language, both developmentally and evolutionarily. In most cases, it will run us before our cognitive functions do, particularly in the realm of social and emotional behavior. So what does it mean to include the body in the leadership development process? How is it done, and what results does it produce?



Somatics is a word that comes from the ancient Greek idea of what it means to be a good citizen. It refers to the art and science of living in the human body; to the inherent and inescapable unity of thinking, feeling, and acting in the world. In somatics, we view the body as the place where sensation, emotion, and cognitive interpretation of events all meet and interact to form one's moment-to-moment experience of life.

While in scientific exploration we are accustomed to dissecting phenomena to their smallest and most measurable components (e.g. what are the electrochemical mechanisms by which the amygdala influences fear-based responses?) somatics restores unity by cultivating an exquisite attention to the whole of one's own present-moment experience. At Strozzi Institute, we have found that cultivating this unity of being leads towards more wholeness and humanity, improved emotional regulation, a more connected and effective way of working with others – and, perhaps most importantly for our times – a deeper commitment and greater ability to take wise and ethical action.

Our biological heritage precedes language, both developmentally and evolutionarily. In most cases, it will run us before our cognitive functions do.

A cultural overemphasis on cognitive learning has atrophied our natural somatic intelligence – a term I use to refer to the following abilities. This is a partial list, but it provides some idea of what tapping into the innate wisdom and intelligence of our biological heritage has to offer:

- appropriately manage one's ongoing mood and handle strong emotions resourcefully
- tolerate strong sensations in order to increase choice and responsiveness (strong sensations often cause a rush to ineffective action such as aggression or isolation)
- connect actions to value by tapping into deeply felt cares and concerns
- experience, practice, and generate the felt sense of a high-performing team
- use sensory experience to provide accurate and valuable information about the world
- manage and read non-verbal communication; your own and others'

By developing somatic intelligence, you can shift from an old way of being that keeps you at arm's length from the future you envision, to a new way of being that is more effective at bringing the stated aims or vision to life. This is done not by gathering new information, but rather by developing the ability to take new action. It requires an entirely different kind of learning; one which we'll explore now.

# A Brief Tour of the Embodied Leadership™ Methodology

Through focused conversation, movement, breath, and bodywork, a Somatic Coach™ guides clients to new competencies, new actions, and new ways of responding to life's pressures and opportunities. By integrating body-oriented psychology and kinesthetic learning into the coaching process, somatic coaching produces rapid, effective, and lasting change that conversational coaching alone cannot produce. Trained somatic practitioners are able to read the body for a person's chronic contractions, help them recognize their embodied limitations, and shift into a more effective way of being in the present.

The principles of Embodied Leadership™ developed out of a unique synthesis of Eastern and Western philosophy, performance psychology, martial arts, linguistics, management theory, and bodywork. Although neuroscience was not one of the primary original influences on its development, there is quite a bit of current neuroscience research that is consistent with the Embodied Leadership™ teaching methodology.

The three foundational components to developing somatic intelligence are somatic awareness, somatic opening, and somatic practices. It is through training in each of these domains that our natural somatic intelligence begins to reawaken.

#### Somatic Awareness

Cultivating somatic awareness starts with learning to listen to and live inside of sensation by paying mindful attention to the body. You can think of sensations as the foundational language of life. Emotions, interpretations, actions, and reactions all arise from sensation. As a general rule, we are normally asleep to the subtle changes in temperature, pressure, and movement that occur constantly throughout the physical self. In this

sleepwalking state, it's easy to become carried away by thoughts, emotions, absentminded actions and reactive behavior. Being connected to sensation brings you back into contact with yourself. As somatic awareness develops, so does the ability to intervene to choose new and more effective emotional responses. Being able to tolerate uncomfortable sensations and emotions produces more choice and less reaction. Since physical sensations happen *only* in the present, shifting attention to sensation brings you immediately into the present moment. Training in this ability is a vital aspect of developing a stronger leadership presence. People can feel when you are present with them, or not.

The research on mindfulness supports the value of developing somatic awareness, and points to similar themes of improved emotional regulation. (Davidson in Begley 2007, Tang 2008)

#### Somatic Opening

Somatic opening is a thawing of the old self so a new self can emerge; it is a requirement in order for new actions to take root and thrive. It allows us to work directly with frozen, numb, or stuck places in the psychobiology. Since existing implicit memories held in the body are so resistant to change, trying to establish new habits without interrupting and softening the old ones is like trying to plant seeds in dry clay. Unless there is a somatic opening, those well-established and deeply rooted neural pathways will continue to override attempts at new action with the default habit or behavior. The biological structures that keep old implicit memories in place won't relinquish their hold unless the concern the contraction is taking care of (safety, love, belonging) is worked through on an emotional and biological level. The somatic opening process goes beyond conversation to soften the tissues of the body directly, which may include using the body full force, bodywork by a somatic practitioner, working with the breath, or other strategies. From a neuroscience perspective working through the body is the most direct doorway into working with those reactions, emotions and memories that are primarily run by the limbic and reptilian brain. (van der Kolk 1994)

#### Somatic Practices

SOMATIC

**Awareness** 

Opening

**Practices** 

Somatic practices help you build new skills and competencies that are relevant to what you care about. New skills are developed somatically so that they become more than just good ideas; they are actions and habits that eventually become second nature. It's not enough to know what triggers your fears or how the brain sets off a fear response, for example; it's more important that you are able to manage your fear in the moment and remain positive, productive, and effective when fear is present.

The body is a domain of action that learns through practice. (Merzenich 2009) Putting the body into new practices both reveals current limiting habits and provides an opportunity to practice new actions. New actions take root by practicing them in a low-stakes, feedback-rich environment. Because implicit memory develops through repetition and immersion, it is through ongoing new practices that the shift to new action takes place. Repetition alone is not enough, however – the practice must have emotional significance in order to last. (Zull 2002) What you practice must be connected to what you care about.

## Case Study: CEO Ed Perry and Human Code

Let's return to Ed Perry's story. When he got the advice to study at Strozzi Institute, he approached it with a gimlet eye. "Let me check this Strozzi guy out and see if he's gonna be good enough for me," was Ed's cautiously cocky approach. By the end of his first meeting with Richard Strozzi-Heckler, he found himself humbled with respect and appreciation. He made the decision then and there to continue his learning at SI for some time to come.

In that first meeting, Strozzi had Ed walk in a random pattern around a large room. He asked him to make small adjustments: breathe deeply, now more shallowly, shift your weight, move more quickly, now more slowly. "Then he touched me between my spine and left shoulder, and asked me to breathe into that spot," says Perry. "I felt excruciating pain... excruciating. But even as I did, I felt my whole body lighting up. I felt an aliveness I had never felt before." They continued the session, exploring that newfound sense of aliveness and developing practices for Ed to bring it into his life on a more regular basis.

#### **Grace Under Pressure**

Based on my own experience in the field and my reading of the literature, I suspect that what happened in this powerful moment of awakening is that Strozzi touched an implicit emotional memory that was stored in the living tissues, cells, and nervous system of Ed's body. This is consistent with Ed's view. He openly describes growing up in a household of alcoholic and abusive parents, and links that life experience to a long-term chronic contraction in his back. He grew up literally "watching his back," constantly on guard against being beaten. He also had a sense of humiliation about his past – about what was, metaphorically speaking, "at his back" – and he felt a need to keep it a secret and "put it behind him." This history lived not in his conscious mind or his brain per se, but in his body, in the musculature of his back, his breathing patterns, and the way he moved. It impacted everything from his capacity for emotional balance, to his ability to lead, to his family relationships.

"It was always really easy to push me off center," Perry says. "My response to that was to be really hot tempered. That had a significant impact on my ability to lead. My progress had always been retarded by this lack of an ability to maintain a sense of centeredness." Training in Embodied Leadership™ "cooled the fire. Even when I do feel that anger, now I have the ability to return to center, and from there I can decide properly, act properly." This kind of improvement in mood management, decision-making, and action is a typical outcome of building somatic intelligence.

I'll speculate here about what may be going on here from a neuroscience perspective. Ed's hottempered reactivity was likely based on historical implicit memories that had become a part of his nervous system through years of immersion in a particular style of relating. To shift this pattern to a more resourceful and effective response for his current-day role, Ed needed to develop new implicit memories that would override the old. Since implicit memories develop through either significant emotional impact or through repetition over time, what he needed was something new to practice that had relevance and meaning for him. This supposition is supported by what neurobiologists tell us about how learning occurs. (Sapolsky 2005, Zull 2002, Merzenich 2009)

He began with somatic awareness: paying close attention to and getting more intimately familiar with his own sensory and emotional responses to what triggered him, observing heat in his body, muscular tension, anger and impatience. Then he entered into a process of somatic practice, training his body and mind to develop a new pattern of response. By putting himself into simulated high-pressure situations and then practicing re-centering his body, mood, and mind, Ed built the capacity to re-center himself on the fly in his real, day-to-day life.

Unlike a lecture about how the autonomic nervous system responds to a perceived threat, this process engages the ANS directly. By deliberately triggering the sympathetic nervous system and then practicing returning to a centered presence, and by doing that thousands of times over a period of months, one can develop a lasting ability to respond with greater equanimity to the inevitable triggers and challenges of leadership. While the old implicit memories aren't necessarily overwritten, those historical patterns are no longer the default, automatic, most practiced reaction. Through this process of deliberate practice a leader builds more choice about how he reacts, rather than simply being driven by his historical tendencies and conditioning. Ultimately this results in more grace under pressure.

#### Imagining A Bigger Future

Ed also saw that he had reached a ceiling on his competence as a leader, not due to a lack of skill or experience, but because of self-image. He had successfully led and sold two companies as CEO, but both were small – 30 or fewer employees. Each reached a point where the needs of the leadership outstripped what Ed felt he could provide, not in terms of intellectual knowledge or business experience, but in terms of strategic decision making, relationships with customers and employees, and the ability to be a true leader: to speak the direction in a way that was attractive enough to mobilize an entire community into action around that vision. "I was a timid person who was not willing to imagine the possibilities of a larger company with a bigger impact on the world," says Ed.

This timidity had been holding Ed back from his full potential, but softening the physical and emotional rigidity held in his body gave him new options. "It opened my eyes to the possibility of being truly myself," he says. As Daniel Siegel points out, a system that holds too much rigidity tilts towards less health. (Siegel, 2009) In somatics, we observe that rigidity in one's thinking or self-concept (such as "I can only lead a small company") tends to be closely tied to some held or stuck place in one's body.

Softening the physical and emotional rigidity held in his body gave Ed new options.

Through a process of somatic opening, Ed began to unwind some of the stuck and held places in his psychobiology. He began to develop more of an appreciation for the strengths his past had built in him while softening some chronic physical contractions. As he claimed the beauty and blessings of his past, and gradually replaced his conditioned responses with more resourceful options, his ability to imagine and create a new and bigger future grew in equal measure. "It allowed me to imagine time horizons and futures that were far greater than I had before... and to be courageous enough to take the bold steps that were necessary to pursue that imagined future. I got into a set of practices that allowed me to imagine myself as a bigger leader. Then I began to behave as a bigger leader. And the world rewarded that, which has allowed me to have a bigger impact." In other words, as Ed moved away from a rigidly held self-concept and towards greater health, he was able to open up new possibilities for himself and others.

While studying at Strozzi Institute, Ed was offered the CEO position at Human Code. For the first time in his life, he was taking over a company in need of a turnaround, fraught with all kinds of problems. He started full of hope, but within 30 days they were out of money, with employees divided into clashing camps, fear and desperation on the rise.

# **Collaborating With and Influencing Others**

Despite the rocky start, Ed was able to not only navigate the challenges, but to lead the company from the brink of bankruptcy to 10 times the revenues and number of employees he had been able to handle before. He attributes a significant measure of this success to the Embodied Leadership™ practices he was engaged in at the time. "People say that you can't go from running a company of a few million in revenue to one that's \$30 to \$50 M. To make a 10x jump in a single leap − there's some big change that's occurred in that person's life that allowed that to happen. The practices of maintaining center and deciding how to take right action from that place of centeredness is what allowed me to get through."

Relying on his newly developed courage, calm, and centered presence, Ed built a strong community of customers, investors, and employees who were enrolled and engaged in making the company successful. "Real leadership causes the people you know and the people you don't know to take right action," he says. Working together under Ed's leadership, this community built the faltering company up to \$80M in value. At that point Ed invited the Strozzi Institute in. He asked Richard Strozzi-Heckler and his team to introduce somatic practices that would knit the Human Code management team into a tighter unit, and then be rolled out to the rest of the company. "I wanted to see if it was possible to use somatics to build the value of the company," says Perry. Currently valued at \$80M, they projected that over the course of the next 6 months they could get it to \$100M on their own. The charge to Strozzi Institute was simple and direct: get us beyond \$100M.

The management team was, like nearly any group of people trying to get things done together, full of ordinary human beings. All of them were subject to the same emotional and social implicit memory drives that live in the body and affect every one of us. Politics, power moves, passive aggressive behavior, and non-productive bickering were standard fare. There was as much effort dedicated to protecting personal turf internally as to protecting turf in the marketplace – an unproductive waste of energy that the company could ill afford. While the team wasn't any worse than other teams in facing these ordinary challenges, it wasn't any better, either.

Strozzi Institute brought in Embodied Leadership™ practices to help the team work together more smoothly. For example, one skill they focused on was giving and receiving feedback. This is typically an extremely emotionally and physiologically triggering event for most people. Whether glowing or "constructive," whether delivering or receiving, it can be hard for people to handle feedback. People come to work with years of history of receiving feedback from teachers, coaches, parents, and so on, along with their own implicit memories and habitual tendencies around handling feedback (taking it personally, selective listening, ignoring it altogether, etc.). These tendencies are inevitably at play in any conversation about performance. Furthermore, receiving feedback from someone who has the power to influence your paycheck can feel like your security is at stake. Sometimes, your security is at stake.

Consequently, both delivering and receiving feedback often feels threatening. My hypothesis is that in conversations about performance, the autonomic nervous system is often activated, and feedback that is intended to improve performance often winds up being more of an emotional trigger than a help. Ultimately this can hinder organizational progress more than it furthers it.

In many organizations giving feedback is avoided altogether, or done badly if done at all. Yet a requirement of high performance is that team members are able to share ongoing useful feedback with one another in order to further their shared aims. Working with the Strozzi Institute, the team at Human Code learned distinctions for delivering powerful assessments. They also learned important practices for *receiving* assessments that helped them settle and calm the inevitable physiological and emotional arousal that came up. With practice, they became more adept at this somatic skill, which opened up more space to be discerning about which assessments to take action on and which to let slide by.

The team accomplished this by engaging in ongoing practices, both individually and together, that helped them build the ability to deliver and receive clear, helpful, relevant, and useful assessments that furthered the progress of the team. This process of learning is very different from jotting down the "5 Keys To Effective Feedback" from a slide. Nor is it a contrived role play. Rather, the team engaged in a real-time, daily practice of performance assessment that had relevance to the real issues of the team.

Daniel Siegel has proposed that the mind is both embodied and relational. (Siegel, 1999) In this case, people trained in a relational skill (sharing feedback) in an embodied way (attending to their sensations and emotions). By engaging their whole selves in a new set of activities and practicing over time, the team learned to embody a more effective way of giving assessments.

Developing team members' emotional, social and physiological capacity to give and receive assessments created a "very, very powerful shift," describes Ed. "It created a different atmosphere on the team. We moved from a presumption of negative intentions to the point where there was clarity about positive intentions. With enough practice, assessments were delivered and received from a place of 'you've got my back' and 'you're trying to help me be more successful at my area of the business.' That orientation produces high trust, and when there's high trust, everybody is lock armed, moving together down the same road."

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Delivering assessments is just one of many examples of embodied practices that Human Code adopted to improve their performance. The results of moving together more effectively as a team? Human Code sold for \$135M. "The management team felt confident that we were able to achieve an additional \$35M above and beyond what we would have been able to achieve on our own," says Ed. "That's a 30% value difference in 6 months. When we asked the buyer 'why us?' they told us that they paid a premium in large part because of the quality and integration of employees across the entire company. We do believe that having worked with Strozzi Institute had a significant impact on the valuation of the company."

Ed Perry's Human Code case study is illustrative, but by no means the only example of Embodied Leadership™ in action. Thousands of individuals, young and old, from CEOs to psychologists, from military elite to citizen activists, have benefited from developing somatic intelligence through the practices of Embodied Leadership™. Like Ed, each one of them has a unique story and a very personal journey.

Ed concludes with this parting thought: "There's something very different – almost to the point of magic – about somatics. To me, it was an integration of physical, emotional, mental and spiritual presence that was radically different from anything I had experienced before."

"There's something very different – almost to the point of magic – about somatics."

May further research help unlock and illuminate some of that magic.

#### References

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Begley, S. (2007) Train Your Mind, Change Your Brain: How a New Science Reveals our Extraordinary Potential to Transform Ourselves; Ballantine Books

Doidge, N. (2007) The Brain That Changes Itself: Stories of Personal Triumph from the Frontiers of Brain Science; Penguin Books

Gershon,M (1999) The Second Brain: A Groundbreaking New Understanding of Nervous Disorders of the Stomach and Intestine; Harper

Judith, A (1996, 2004) Eastern Body, Western Mind; Celestial Arts / Ten Speed Press

Laszlo, E. (2004, 2007) Science and the Akashic Field: An Integral Theory of Everything; Lake Book Manufacturing / Inner Traditions

Lewis, T; Amini, F; Lannon, R. (2000) A General Theory of Love; Vintage Books

Lipton, B (2005, 2008) The Biology of Belief: Unleashing the Power of Consciousness, Matter, and Miracles; Hay House

Lloyd Mayer, E (2007) Extraordinary Knowing: Science, Skepticism, and the Inexplicable Powers of the Human Mind; Bantam Books

McTaggart, L (2001, 2008) The Field: The Quest for the Secret Force of the Universe; Harper

Merzenich, M. (2009) Neuroplasticity; presentation for the Oregon Health Sciences Brain Awareness Lecture Series; Portland, OR

Pearsall, P. (1998) The Heart's Code: Tapping the Wisdom and Power of Our Heart Energy; Broadway Books

Pert, C. (1997) Molecules of Emotion: The Science Behind Mind-Body Medicine; Simon & Schuster / Scribner Books

Ramachandran, V.S. (2007) A Journey to the Center of Your Mind; presentation at TED

Sapolsky, R. (1991, 2005) Biology and Human Behavior: The Neurological Origins of Individuality; Stanford University course lectures, The Teaching Company

Siegel, D. (2009) Mindfulness and the Integrated Brain; presentation at the 2009 Neuroleadership Summit; Los Angeles, CA

Siegel, D. (1999) The Developing Mind: Toward a Neurobiology of Interpersonal Experience; Guildford Press

Strozzi-Heckler, R. (2007) The Leadership Dojo; Frog, Ltd

Tang, Y-Y; Posner, M (2008) The Neuroscience of Mindfulness, *Neuroleadership Journal, Vol. 1*, 33-37

Van Der Kolk, B (1994) The Body Keeps The Score: Memory & the Evolving Psychobiology of Post Traumatic Stress, *Harvard Review of Psychiatry*, 1(5), 253-265.

Zull, J (2002) The Art of Changing the Brain: Enriching the Practice of Teaching by Exploring the Biology of Learning, Stylus Publishing