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The Leading Brain

An exercise in Self-Coaching

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Summary

Neuroscience, the frontier discipline that studies the brain and the mind, continues to surprise us every day as it unravels the interplay between our biology and our experience, ultimately examining how our brain helps and limits our evolution. A leader's knowledge about the expanding field of brain research, coupled with keen self-awareness moment by moment, is foundational for successful personal transformation. It enables the act of self-coaching, a use of self as an ongoing growth tool that builds and expands.

As president of an international not-for-profit consortium, I have often tripped over obstacles of my own making, when confronted with the challenge of addressing a particular segment of members or contributors; designing a truly strategic board discussion or writing the tone-setting piece for a new directional change initiative. How do I know that such barriers are of my own making? I know, because I usually overcome them with little external intervention.

As I consider writing this chapter, I am confronting some inner hurdles once more. I am therefore facing the same need for self-coaching that I confront many times as a leader in everyday life. I will take this self-coaching opportunity, as leaders often must, and simultaneously apply the many insights that have recently become available from what we now term social neuroscience: insights, among others, about why it is so hard for human beings to change, how our interpretation of reality shapes our experience and why; how stress - in turns - stimulates and potentially destroys us.

I have not written about this subject in a while, let alone in the context of such illustrious co-authors as this volume brings together. As I approach the task, my mind, therefore, creates a gap between what is and what will be, more importantly, between what I think I need to produce and what I think I am capable of producing. (High achievers have typically low self-esteem, that's why they strive so hard, Dr. Vance Caesar discovered in his doctoral work.)

> *I'm self-aware enough to notice that I have a gap to bridge, but that the nature of the gap may be different from what I first feel. I may have an opportunity to change how I operate by adjusting how I hold myself, my strengths and my capabilities in relation to the task.*

The mind doesn't like gaps. It doesn't like things it can't connect. When it receives information, it first attempts to relate it to something it recognizes, and

the rest is pretty much dismissed. Then, as an added, provocatively unfamiliar data element is introduced – e.g. a powerful coaching question or a challenge to act – the brain starts to work on creating connections which will resolve the open tension, the cognitive dissonance. In that sense, my challenge to write for you is a good stimulus for something new to happen. New synapses have an opportunity to fire.

> *But wait, I am under time pressure. Because I procrastinated.*

We procrastinate when closing the action gap is not easy, when we are required to get out of our mental comfort zone (when we are confronted with what feels like change!). So how did I get myself to act at all, and sit down to write? One crutch I used is the behaviorist approach: the trick of writing deadlines into my calendar. But that only got me to sit down and "try."

> *A glass of water is at the ready. I start reading literature about my subject. All interesting and stimulating, but ultimately tiring for my eyes and brain. I'm "efforting" (if there is no such verb, there should be) and not making much progress on my change path.*
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> *It's quiet, I have closed my door. I feel stiff; I get up, aware of the struggle I am getting away from, I walk around, look out the window. My mind wanders to the building under construction across the street. I am not consciously trying to do anything right now, although a part of my mind knows what I need to solve. I can trust it to be working on closing the idea-gap, the task that irks me.*

We operate at several levels simultaneously. A fundamental assumption of mind-body correlation is accepted almost universally in today's neuro-physiological research: Conscious thought is a result of processes within the cerebral cortex. But the cerebral cortex is continuously receiving messages, directly and indirectly, from the brain's lower levels: From sub-cortical centers such as the amygdalae, hippocampus, and basal ganglia; From still lower levels such as the hypothalamus and central gray matter; From yet lower nuclei located in the brain stem. As studies by today's foremost neuro-physiologists – Edelman, Rolls, Damasio, LeDoux, Heilman, Valenstein, or Jeffrey Schwartz are showing, cortical processes of the brain are riding on top of multiple sub-cortical and lower brain processes. In the February 17, 2006, issue of *Science*, Amsterdam University psychologists demonstrate that conscious thought may be best suited for simple decisions, but that complex situations are better served by "both minds" – the conscious *and* the subconscious.

> *I am an executive coach. I know, experientially, how to engage as much of the whole brain as possible. Inducing lateral thinking and big-picture visioning can help allow the moment in which several levels of the brain fire up and an insight is created. I ask myself: "What would it mean to you*

to have this article published?" "Why not just give up? It's an option." "What's going on with you right now?"

Attempting to answer, my mind begins to let go of the immediate task at hand, seems to slow down. At some level, it's dreaming of what can be, and my immediate environment is fading from my view. I'm elsewhere.

The state is introspection, reflection. Whatever term we use for that state in which the auditory and the visual cortex quiet down, it is preparing the conditions for a different kind of mental event.

Pop, electrical impulses connect across new neural pathways… The insight appears: "Write about this very process of writing an article!"

Moments of insight are the gold we all mine for. For years I have known, and many formidable leaders have told me that "changing one's mind," "thinking a new thought" is a favorite thrill of theirs. The studies that have observed brain activity at the time of insight show the brain "lighting up" with pleasure, you might say. In accordance with the length of time and the effort we had been deploying in seeking the insight, either a smaller of a more substantial burst of adrenaline, dopamine and other stimulating hormones create a cocktail that courses through our bodies, and we perceive it as excitingly delightful (similar, apparently, to hearing and getting a great joke).

I ride the excitement of my first insight for a bit, sketch out some ideas for an outline. "Some of them are not so hot," a voice says, in my mind. It finds contradictions, mistakes, it questions my knowledge. My energy is beginning to wane. Where does this 'voice' come from, that zeroes in on my inadequacies?!

The emotional mind, according to LeDoux, is deeply wrapped up in the working of the amygdala. It is what Freud and the psychodynamic theorists were primarily referring to, when they described the multi-tiered functioning of the mind. They proposed that many cognitive structures and functions in the mind are devoted primarily to the management and control of the powerful emotions that are embedded in past experiences (especially from childhood) and, perhaps, even in archetypal, inherited images that are strongly associated with intensive, often primitive feelings.

Successful performance and leadership has a great deal to do with which internal voices we choose to listen to and which not. Because there will always be voices! An adaptive characteristic we as humans developed as we evolved on the Savannah is to store unfathomable amounts of data in our long-term memory, thus creating huge efficiencies in processing and storing information. Parental and societal input, wrapped in our interpretations, is tucked away in our long term memory. And this data self-organizes, in dialogue with our rational mind and with

our continuous experience, into “templates” that show up as assumptions, conclusions, beliefs or preferences. So to expect ourselves or others to operate without involuntary references to such templates is illusory.

Moreover, our brain cannot distinguish well between an internal reality of its own making and external events it responds to. So my self-criticism, just like “feedback” by others, engenders a powerful, visceral negative template-reaction in my brain. Naomi Eisenberger and Matthew Lieberman at UCLA scanned people’s brains during episodes of rejection and found that the areas of the brain activated by rejection (emotional distress) are similar to ones that respond to physical pain. So the poets were right: there is real pain in a broken heart.

> *I freeze. This isn’t going anywhere, I think. My own mind has created a judgmental evaluation, and I am experiencing all the stress-reactions that are to be expected. My hearts starts beating with worry; my shoulders are tightening. The idea flow has stopped. I’m thrashing about, trying to ‘fix my mistakes,’ scavenging through books and wasting time.*

“Break the mood, break the pattern!” I self-coach. Stepping out of the office, I automatically approach the coffee maker, and the cookies that someone kindly laid out.

A post-modern trap we have built for ourselves in the last century or so is no longer to view discomfort and pain as an acceptable part of living. We seek immediate relief. Tired and overworked? Grab caffeine. A conflict gave you tension headaches? Grab an analgesic. Too wound up to fall asleep? Grab a sleeping pill. And the circle replays itself next day. John Preston has written many best selling books on depression, psychopharmacology and the emotional healing process, and faults this type of vicious circle for many chronic ills the work force is developing. Foremost among them is a lack of connection and awareness of our bodies’ messages, masked as they are by foreign substances. Another is the long-lasting, perhaps permanent damage caused by a combination of stress and caffeine, in particular. Researchers of the effect of sustained stress on the brain and on the body speak of the cortisol-effect: a complex downward spiral by which hormones like cortisol repeatedly wash through the physical system and engender physiological stress responses, accompanied and followed by deeper and deeper brain ‘ruts’ of depression or anxiety. Robert Sapolsky describes this rutting process:

> *. . . stress responses tend to spiral up and down. First we are triggered. Then, we react to being triggered with confusion, humiliation, and even anger (I’m angry because you scared me). This becomes a spiral of stress. For intense stressful events, we create an Engram [memory] that never goes away.*

This effect is turbo-charged by caffeine. John Preston suggests that therapists and coaches might need to first ensure that their clients are not consuming more than 250 mg. of caffeine a day, before even attempting an intervention.

> *I don't even much like the taste coffee, why then do I crave it every day, particularly in times of stress? What's an alternative to such a habit? Another voice, one of reason – sounding much like my colleague Jim Loehr's - reminds me that if I want to perform at my highest capacity as a "corporate athlete," I have to train accordingly. Like making a licorice tea right now... and perhaps, starting tomorrow, turning the coffee maker off for the day after one morning cup.*

Training means: using the little bit of working memory and will power that *is* under our control to establish consistent positive rituals. Like having five, small and balanced meals during the day, instead of starving the brain during the day when it most needs glucose (and oxygen!) and overeating at night.

> *Armed with a fresh cup of tea, I follow another performance-physiology prescription. Oscillate! Don't keep doing one type of activity for more than 90 to 120 minutes. After so much writing and reading, I stretch for a couple of minutes. Nothing indecent, just a few arches and curls of the spine, sitting in my chair, and a few gentle twists, looking all the way behind myself. My back and my brain have received rushes of oxygen due to the movement, my eyes have stretched and rested.*
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> *I am now writing with intensity and ease. Someone wants to interrupt me but I cherish the momentum and keep going.*

Such sustained action holds in place the new brain circuits created by the insight, hardwiring them, as the authors of "A Brain-based Approach to Coaching," David Rock and Jeffery Schwartz would say. If I want to write with increasing ease, I have to write now and stick with it. Knowing what we are up against in creating lasting behavioral and cognitive change, executive education is therefore increasingly pushing into action learning methods. The results of several days of training have long been recognized to remain in the 20-30% range of effectiveness against objectives, unless followed by customized coaching, mentoring and active application.

> *I won't finish this today. As I look at my agenda and envision the next oasis of time I can dedicate to this, waves of anxiety rush through my mind and body. But I know that I have to block a daily amount of time and finish this soon. "You should finish it soon," I hear myself saying.That doesn't sound like fun to me. My mind doesn't grab on to the intention, I can't fool myself. Yes, I can calendar it to make sure I don't forget, but - saddled with that "should," will I be back to square one when I sit down?*

We can change the behavior associated with our motivational mind (LeDoux) through reinforcements, rewards and punishments, but our motivations are often deeply "rutted" and tend to re-engage old behaviors once the reinforcements (crutches) are withdrawn. It helps enormously to engage another part of the brain that responds to social motivation.

> *So I pick up the phone and tell an esteemed colleague about my beginning article. I know that if my colleague sounds encouraging and excited about the project, my mind resonate with his optimism... especially since I'm a woman. And my colleague Bill does me one better. He tells me of a series of speaking engagements (my favorite professional activity!) that he can arrange for me on the basis of this article. I am emotionally high. It will be no effort for me now to remember my task, nor to return to it daily for a few days.*

The colleague's input helps the brain release endorphins, which in turn disinhibit the release of a dose of wonderful dopamine. The hormones have the effect of what we call a positive emotional state. We remember and are motivated to act not only based on social connections but when we are affected emotionally.

> *A male colleague, who just phoned, hears the tale of my findings. He voices a different perspective: It is his sense that he personally would have felt more stimulated into writing if the challenge had included a competitive element instead of just positive reinforcement.*

His act of self-awareness surfaces something that brain research confirms: In men, cortisol does, in moderate amounts and when not induced too often, increase alertness and excitement, moving them to action. Much of the workaholism we encounter might be explained by various levels of addiction to such hormones generated during a high state of stimulation at work. In women, on the other hand, cortisol interacts with estrogen and progesterone and may shut a person down, which is why competition may not be the best stimulant to high performance for women. One of the key skills leaders have to develop is to rightly calibrate the degree and the duration of the challenges they impress upon the individuals they lead, as well as on themselves.

> *So it won't become immediately natural for me to keep writing. But the power of positive emotional states, generally healthy mental and physical habits, and the consistency of practice will be helpful.*

In addition to actual experiences, every occasion when we even just speak of an emotional event reactivates the circuits related to it in our brain, ensuring retention in memory. Otherwise, the news about our attention span isn't good when it comes to creating enduring change. If you have taken a crash course in a computer program and didn't use it regularly, you know that retention was

minimal. A very few minutes a day of consistent, practiced attention to a new idea, behavior or attitude work wonders, compared to an hour a week or even a one-time full week experience.

> *However, most helpful of all in my progress, will be my willingness to let my mind float laterally, obliquely, in its own time, through its own free associations to activate the unexpected connections I so long to generate.*
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> *The end of 'efforting' is near.*

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