# Leaders Mind their Brains Debra Pearce-McCall, PhD

What makes a leader? Observe a group of children at play, adults in a business meeting, dogs romping around the park, or the stage of national politics, and you can clearly see that a leader exists in relation to the rest of the group, in an ongoing interactive exchange. Leadership, usually considered an individual quality, is in practice, a relational enterprise. Past theories of leadership

focused on charisma, authority, personality style, and other traits that allowed leaders to exert topdown influence on groups. New views of leadership, consistent understanding with the influence reciprocal that systemic thinking has brought many fields, see relationship between leaders and followers as a mutual process (see a review of these in Avolio, Walumbwa, & Weber, 2009).

In this article, I bring the lens of Interpersonal Neurobiology (IPNB) to the consideration of

leadership (for more about IPNB, see Siegel, 1999, 2006, 2007). IPNB, a philosophical worldview shaped by complexity theory and interdisciplinary inclusiveness, examines consilient empirical findings from social neuroscience, relationship and developmental studies, and examinations of consciousness and change, and applies them to facilitating well-being, within and among people. Consilience, or the convergence of streams of knowledge, also allows us to consider what common factors contribute to health and well-being across many relational endeavors, including leadership, education, medical and therapeutic work, and parenting.

The IPNB conceptual frame helps us hold multiple levels in mind, to see how well-being emerges from the interactive and non-reducible triangle of attuned relationships, a coherent mind, and a neurally integrated brain/body (Siegel, 2007). These are achieved and supported by numerous

forms of integrative process, whether viewed at the level of self, relationships, or human groups and organizations. In my leadership consultations, I work from the belief that the best leadership fosters integration in self, others, and organizations. In our human social brains, a key area in this engagement and integration is the middle prefrontal cortex (mPFC). Interestingly, the

functions that correlate with neural activity in this brain region are also the qualities of attuned relationships mindfulness, the latter being a form of attunement (Siegel, 2007). intrapersonal Well-being occurs when a system remains in a balanced yet re-organizing state, as a synthesis of stability and change, while integration promotes development and complexity. Siegel has imaged this process as a river, bounded by the shores of chaos and rigidity. Though it may veer toward one bank or another, a well-led organization will right itself and find itself back in forward movement, in a state summarized by Siegel's



acronym FACES – flexible, adaptive, coherent, energized, and stable (Siegel, 2006). An organization in this mode can respond to internal and external demands and shifts in ways that maintain the core identity and reinforce the self-organizing development of the entity. If we image this organization moving across time as a boat on this river, then the leaders are those who risk charting the course *and* take responsibility for attuning with the others, eliciting commitment and collaboration among the crew, and facilitating the regulation and integration onboard and through the currents. In addition, the wisest leaders invite self-leadership in others, sometimes relying on the

spontaneous order that can occur in self-organizing systems (imagine fish swimming together or birds flocking to their destination).

Organizational consultants and internal leaders can create bridges of integration in many ways: between history, today, and tomorrow; people, organizations, and the planet; co-workers, departments, and customers; intentions, goals, and actions; profits, costs, and values. Being consciously aware of these processes, they are

acting like the middle prefrontal cortex for the organizational mind/body. drawing the many components influencing their enterprise into an integrating energy flow of information that supports response flexibility, attuned regulation, and empathy. They provide a mindful and compassionate presence, similar to attuned therapists,

teachers, and parents, facilitating continual reintegrating and rebalancing, as the organization moves from one stage of growth to the next, responding to new stimuli from the environment and its interior. In this way, the organizational body returns repeatedly to the FACES flow, not losing course, or crashing into the riverbanks, with leaders providing this emergence management (Pearce-McCall, 2007). I believe the healthiest leadership occurs when those at the helm are evidencing those integrative, middle prefrontal qualities, and that successful leadership consulting involves modeling, mirroring, and facilitating these integrative capacities in leaders. Interestingly, the small amount of research that has looked at leadership and attachment found secure attachment correlated with a transformational leadership style - leaders who have vision, empower people, and gain trust and respect (Popper & Mayseless, 2003). Recent ongoing studies investigating hypothesis that attachment style greatly affects leadership suggest that highly effective leaders function as a "secure base," promoting what I would term an attuned and regulated relational environment. Conversely, insecure work

attachment styles in military leaders correlated with more negative perceptions of the leaders, and lower levels of performance and mental health over time in their followers (Davidovitz, Mikulincer, Shaver, Izsak, & Popper, 2007). When we view leadership as an interaction, we realize that a leader's greatest resources are relationships, coregulation, and integration, and a great leader is one who can be mindful of multiple aspects of these, as needed.



Let's bring this to life with an example. I will summarize the story of one organization where the executive team engaged in an IPNB-infused consultation with me. This particular business organization (I will call it "BizA," as I maintain confidentiality for many of my business clients) is a

creative production company. As such, they need to manage all the survival aspects of any company: marketing, income, payroll and benefits, expenses, legal issues and logistics, policies and procedures, profit and growth. In addition, they work with a product that is constantly recreated, requiring a coordinated team effort, humor, talent, and a willingness to risk. Their performance is also evaluated via the feedback of an audience as well as the marketplace. I will note it was an ideal candidate for this type of leadership development consultation – an organization with people who are creative, have flexible minds, superb senses of humor, passion about their product, commitment to their company and the people working there.

When I was contacted by one of the executives and told they had identified three core leaders to be at the first meeting, I concurred with their preliminary definition of who needed to be present. Sometimes additional leaders are identified and need to be invited into the discussions, but these three remained the people I worked with, as they clearly formed the "hub" of this particular

business. Right from the start, I began considering the first form of integration, that of consciousness. Siegel (2007) uses the image of a wheel to illustrate this foundational integrative process, with the central hub of mindful presence sending intentional attentional spokes out to all kinds of information available on the rim. Leaders (and consultants) need to be in that hub – considering



the sensory plane (such as ergonomics, office layout, or location), the information, affect, nonverbals, and signals from within (similar to organizational interoception) and without (the marketplace, community, environment), organization's mind (narratives like history and vision, goals, culture, emotional beliefs, atmosphere, methods of communication), and the organization's and employees' performance and health. As I started engaging with key leaders, my first goal was to help each of them enter the hub, creating spokes to all necessary aspects on the rim - focusing attention with intention, and opening to reflection, regulation, and relationship. there, we could begin attending to all the other types of integration.

Through phone and email contact, I started the consultation with this hub in mind, by having each prepare for the first meeting in several ways. I asked each of them to take the Signature Strengths Survey (available at <a href="http://www.authentichappiness.sas.upenn.edu">http://www.authentichappiness.sas.upenn.edu</a>) and bring the results with them. This immediately set a

tone of positivity, and invited each to bring their best qualities to mind – often those qualities that facilitate their unique leadership style. I also asked them to reflect on four questions, each designed to promote a safe, well-resourced, and change-oriented meeting atmosphere: 1) What helps you do your best work? 2) What do you wish you could do differently at work? 3) Name a few things you really like about your job and your workplace; and 4) What two changes/areas of growth would you like to be part of in your organization?

I structured our first meeting as a combination of individual and group discussions with me. This protocol follows what we know about encouraging an integrative process: differentiation and acknowledgement of each person in our one-to-one conversations, and linking this together in a coherent way in a full group discussion. consulting relationship involves attunement. rapport building, eliciting people's stories and perceptions, and encouraging an atmosphere of regulation, communication, and change/growth as well as bringing new information, a different perspective, and specific possibilities Through each recommendations for change. communication, the connection builds.

With this combined 1:1 and group format, I could focus efficiently on creating an attuned rapport with each person while building my multi-level understanding of their business (individual perspectives, organizational perspective). Through the information gathered, and the type of narratives that occurred during these meetings, I learned about the levels of integration in the organization and what might be constraining them. In essence, through any contact I had with them, I was listening for and assessing: how well are these leaders demonstrating those characteristics that correlate with secure attachment, mindfulness, and a well-functioning mPFC? How are they doing at the various forms of integration that keep the organization in a flexible, adaptive, coherent, and stable process of maintaining, producing, and developing with a successful triple bottom line (profitable business, happy employees, sustainable practices)?

The first meeting illuminated several areas that were limiting their ability to be a healthier workplace. Note that through these foundational conversations, we were activating the development of a coherent organizational narrative out of three individual stories. Each spontaneously discussed with me their career path to this current job and the hopes they held for the future. Within each story was a signpost to an area that had become a continual sticking point, one involving professional and personal history, high emotion, and the potential for repeated triggering of implicit memory in their current situation. I knew that part of our group meetings would need to address and

initiate resolution of these obstacles, whether directly or indirectly.

In addition, their responses to my pre-meeting information gathering indicated that having productive meetings was an area of concern, so I planned a brief discussion about "how to have a healthy meeting" for the start of our group time. To fit their company's style, we actually discussed how to have an

awful meeting (e.g., get defensive and blame others, avoid action plans) and backed into positive guidelines with laughter. This set an open, safe tone of engagement in which we immediately put those guidelines to work for the rest of our meeting, increasing the likelihood they would retain the ideas and bring the strategies into their future discussions. These simple and effective strategies included: 1) set a clear agenda before or at the start of the meeting, show up prepared, and stay flexibly focused; 2) use a meeting as a work session, not a review, with the goal of creating action items and clear lines of responsibility by the end; 3) use email effectively for between meeting follow-up, (e.g., one topic per email; a cc: to someone means they can review but need not reply); and 4) make conscious choices about who attends which meetings to be both efficient and effective in utilizing each person's leadership strengths.

Though these leaders each had different titles, they also had some confusion about exactly how to divide their work responsibilities and still coordinate well. Clarifying this involved both integration (management vertical employees, the board) and horizontal integration (different divisions within the company, clear role division for the three of them). Within their subgroup, and in the energy and information flow from them to the rest of the employees, several mPFC-related functions were in need of attention and strengthening. particularly attuned communication, emotional regulation, response flexibility. In an interestingly isomorphic

> way, each of the three executives had a leadership style that could be viewed in brain metaphors: one had a more left-mode style logical, linear, business background; one tended toward right-mode style - emotional, intuitive, very attentive nonverbal communication; and the third person was more limbic - the conduit to the performers and a performer as well (the body/the action), spontaneous, revealing, and holding deep fears about the survival of

enterprise. How fitting for the three of them to learn an integrated way to co-lead, using their strengths more, consciously appreciating each other's styles, and how they worked together.

After we discussed their individual strengths and styles of leadership, meeting management, and workflow coordination, they each began to share other major concerns. They made explicit certain fears they'd carried silently, and in the ensuing conversation, attended to and addressed each other's needs in ways that further clarified roles and responsibilities, increased empathy attunement, and moved toward a coherent shared narrative of their organization. Part of this involved acknowledging the merging of the stories of the person who had the original vision for the enterprise and the co-leader who was instrumental in bringing the idea to life - respecting the deep meaning and subtleties felt by each. This allowed



them to embrace a larger narrative to which they and all who worked there felt connected, while valuing the essential roles and contributions of both of them. Hopefully, strengthening their connection by addressing these core elements would minimize the repeated triggering of polarizing exchanges between them that placed the third executive in an uncomfortable "middle." (In fact, later follow up indicates it did).

Perhaps as a direct result of the left-mode and right-mode leaders creating this shared narrative, the leader/performer was able to talk about past

workplace betrayal and address how the survival fears arising from that experience could rear up in regard to this organization. As they talked, they clarified their shared values vision and of the company's future and their commitment to each other The and its success. memory integration that occurred through this open collaborative and discussion resulted in a greater sense of safety and a significant decrease in the impact of some implicit

memories in their ongoing interactions.

Throughout the process, I would share relevant "your social brain at work" information as it fit. They were particularly struck by information about mirror neurons and emotional contagion, and realized that this had become an almost daily obstacle for them, when one person's upset or dysregulation would seem to spread and infect them all. Understanding this process led them to form clearer boundaries regarding how they brought personal issues and emotion into the workplace, as well as maximize the sense of "private space" in their physically open office environment (some soundproofing, equipment and furniture arrangement changes). In addition, they all felt more personally responsible for how they expressed themselves, and developed simple strategies to be more mindful about office communications. With their new understanding of implicit memory, they each saw a significant communication difficulty they had been creating as part of a reactive response and perceptual filter they brought to the situation, based on implicit memories from other relational experiences. For example, one sometimes responded to feeling overwhelmed by saying, "I can't take it anymore" (though she knew she could and would), but this triggered deep fear of failure and the end of the enterprise in another, which immediately drew her into a reactive state as well.

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They made significant progress in this first consultation. To provide continued integration and follow through, Ι sent them several assignments. Some reinforced what we had worked with (e.g., which two signature strengths would they like to use more at work and how could their co-workers support this? What roles, responsibilities, and decisions belong to each one of them or to the business's board?). The other assignments focused on agenda items we still needed to address. One key area remaining was creativity and the process of creating - the essence of their business and its product.

Having improvisational backgrounds, they all related to wanting what they termed the "yes and..." (when improvising, this is an exercise in going with the flow and building on each other without judgment). The work they did involved taking risks, the feedback was inherently personal as well as professional or product-oriented, and they all wanted to increase the safety and collaborative feel of their creative process.

In preparation for our next meeting, I asked them to notice and reflect upon their individual and group creative process: You all spoke about "yes and..." – what else increases the pleasure and effectiveness of your creativity? What would you like to do less of/more of when feeling stressed by the conflict and risk of being creative? How do you monitor yourself and avoid shutting down

creativity with absolutes, inflexibility, differences in opinion, or "I told you so." (These were their self-defined blocks, which I had gathered from our

prior discussion.) I also sent them a tool to work with, the six thinking hats (de Bono, 1985), where each color represents a thinking style/attentional focus. A quick summary of



these: the white hat focuses on facts and what information is needed; the red hat attends to feelings, hunches, and intuition; the black hat is judgment or why something won't work; the yellow hat attends to benefits and positivity; the green hat is about possibilities and alternatives;

and the blue hat takes that reflective step back to process, to thinking about thinking. Originally designed as "hats" that everyone in a meeting would all wear to look at things from the same perspective, and then switch hats to another perspective, I utilized them to promote state

integration. I asked them to think of each hat as illustrating a shifting state within each of them and among them in meetings. I also picked this tool because it fit their artistic, performance way of being. I knew that as their capacity for



attuned and empathic relating emerged through these processes, their mPFC functioning would increase, allowing them to become more integrated as a work team, and fostering the response flexibility needed for an open, creative process.

We met once more, a few months later. Again, information about our brains left a strong impression. We discussed (using the hand model of the brain) what kept that essential mPFC "online" and what decreased its potential to give them the attunement, empathy, and response flexibility they needed to do their best creative work. Brain scans of jazz pianists show strong activity in the mPFC (with decreased activity in the dorsolateral prefrontal cortex) during improvisation, and the researchers suggest having

the mPFC fired up may be important to all forms of improvisation (Limb & Braun, 2008). These leaders were also affected in a positive way by learning that they literally impact each others' neurotransmitters and brains with acknowledgement and appreciation (or criticism); that stress affects listening and creativity and brain integration; and that there is power in taking a step back to mindfully observe one's self and then respond, rather than react. We also played with the

"hats," and they decided to continue using them to welcome all perspectives in self and others, and to identify which voices did or did not need representation at different types of meetings. In addition, they resolved the ongoing dilemma of how to use



information from responses to their product, realizing that second-guessing blaming were useless. This led them to commit to some filtering of their

comments, reflecting on if the potential responses were responsible, compassionate, and pointed toward a future improvement, before sharing them.

This leadership consultation was highly



successful and they declared themselves "fixed," which I supposed meant they now had what they needed to be in a flexible, adaptive, coherent, energized, and stable organizational mode, riding the



emergent processes of integration and well-being. When I checked with them a year later, I found it was the information about

our social brains that had really stuck with them and increased their dedication to keeping these new ways of communicating, leading, and having meetings. I knew changes had also occurred because many types of integration (consciousness, vertical, horizontal, memory, narrative, state) had been supported in the consultation, resulting in these executives more fully demonstrating those mPFC qualities of attunement, regulation, response flexibility, and empathy in their daily leadership.

The obstacles to free-flowing creativity had been removed. At last report, they are all enjoying work greatly, communicating and collaborating well, and their business has grown, receiving national recognition and increased financial success.

**Debra Pearce-McCall, PhD, LP, LMFT**, delights in the interdisciplinary, integrative, emergent, and hopeful perspective of IPNB, and enjoys applying it every day. A charter member of GAINS, Debra serves on the board and is an editor for the *Quarterly*. In addition to maintaining a private clinical practice in Portland, Oregon, she provides leadership and organizational consultation. To challenge herself to deeply learn and apply this framework, she helped develop and continues as an adjunct professor in the IPNB certificate program at Portland State University. You can reach Debra via email at dpearcemccall@gmail.com.

### Watercraft

Heading down the river of life, Bounded by the banks Of chaos and rigidity, The leader and crew ride through Rapids - calm - returning to flow on.

Some like to go on longboats, Oaring in union while Their leader at stern Keeps their beat. Floating toward rigidity, Joining against chaos.

Others prefer pontoons or even rafts,
Perhaps, with no leader clear,
Drifting on the current,
Toasting the views along all ways,
Enjoying the ride until...

A few set sail on a yacht - why not?
Crew does the work while they Luxuriate! 'cause they can.
In the Big cabin with the Captain Who owns the boat and takes the wheel for show,
They trust in his direction.

Me. I like a working boat, A racing boat. A pleasure cruise, Depending on the waters. Working, playing, being. Together. Leaders we trust walk and talk among us, Seeing all around, Considering the creative headwaters toward chaos And the disciplined shoals near rigidity. FACES to the sun and wind, We ride the integrative Now.

Debra Pearce-McCall 2008

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- Avolio, B. J., Walumbwa, F. O., & Weber, T. J. (2009). Leadership: Current theories, research, and future directions. *Annual Review of Psychology*, review in advance posted online July 23, 2008, retrieved September 30, 2008.
- Davidovitz, R., Mikulincer, M., Shaver, P. R., Izsak, R., & Popper, M. (2007). Leaders as attachment figures: Leaders' attachment orientations predict leadership-related mental representations and followers' performance and mental health. *Journal of Personality and Social Psychology*, 93(4), 632 650.
- de Bono, E. (1985). Six thinking hats. Boston: Little, Brown.
- Limb, C. J., & Braun, A. R. (2008). Neural substrates of spontaneous musical performance: An fMRI study of jazz improvisation. *PLoS ONE 3(2)*: e1679 doi:10.1371/journal.pone.0001679.
- Pearce-McCall, D. (2007). Our organizations, ourselves: Mindsight at work. *GAINS Quarterly: Connections and Reflections, Autumn edition*, 12 17.
- Popper, M., & Mayseless, O. (2003). Back to basics: Applying a parenting perspective to transformational leadership. *The Leadership Quarterly*, 14, 41 65.
- Siegel, D. J. (1999). *The developing mind: Toward a neurobiology of interpersonal experience*. New York: Guilford Press.
- Siegel, D. J. (2006). An interpersonal neurobiology approach to psychotherapy: Awareness, mirror neurons, and neural plasticity in the development of well-being. *Psychiatric Annals*, *36*(4), 248-256.
- Siegel, D. J. (2007). The mindful brain: Reflection and attunement in the cultivation of well-being. New York: W. W. Norton.

### The Embodied Interpersonal Neurobiologist

- Badenoch, B. (September/October 2008). Brain to brain. Psychotherapy Networker, 34-37, 56.
- Carr, L., Iacoboni, M., Dubeau, M., Mazzlotta, J., & Lenzi, G. (2003). Neural mechanisms of empathy in humans: A relay from neural systems for imitation to limbic areas. *Proceedings of the National Academy of Sciences of the United States of America*, 100, 5497-5502.
- Hariri, A. R., Bookheimer, S. Y., & Maziotta, J. C. (2000). Modulating emotional responses; Effects of a neocortical network on the limbic system. *Neuroreport*, 11(1), 43-48.
- Iacoboni, M. (2008). Mirroring people: The new science of how we connect with others. New York: Farrar, Straus & Giroux.
- Schore, A. N. (2007). *The science of the art of psychotherapy*. Paper presented at conference of the same name. Skirball Cultural Center, Los Angeles, CA.
- Siegel, D. J. (1999). *The developing mind: How relationship and the brain interact to shape who we are.* New York: Guilford.
- Siegel, D. J. (2006). An interpersonal neurobiology approach to psychotherapy: Awareness, mirror neurons, and neural plasticity in the development of well-being. *Psychiatric Annals*, *36*(4), 247-258.
- Siegel, D. J. (2007). The mindful brain: Reflection and attunement in the cultivation of well-being. New York: W. W. Norton.

## An Elf in Therapy

- BBC World News (August 10, 2005). Retrieved on December 12, 2007 from http://news.bbc.co.uk/1/hi/technology/4137782.stm.
- Block, J. (2007). Pathological computer game use. *Psychiatric Times*, 24(3). Retrieved on April 10, 2008 from http://www.ajp.psychiatryonline.org/cgi/content/full/165/3/306.
- Badenoch, B. (2008). Being a brain-wise therapist: A practical guide to interpersonal neurobiology. New York: W. W. Norton.
- Clark, N., & Scott, S. (in press). Game addiction: Through the eyes of the players. Jefferson, NC: McFarland Books. Doidge, N. (2007). The brain that changes itself: Stories of personal triumph from the frontiers of brain science. New York: Penguin Books.