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Brain to Brain: The Therapist as Neurobiological Regulator

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As I'm trying to prepare dinner, my 6-year-old granddaughter Ruby is tormenting her little sister with pokes and pushes. Tired, too, I feel myself tighten up, ready to say sternly, "Ruby, leave your little sister alone!" But remembering what brain science has taught me, I instead pause and relax my body. Her provocative teasing reflects a nervous system taxed by a long, adventurous day at the park. If I reprimand her, I'm going to further dysregulate her and increase her body's need to discharge tension in this way. As I begin to breathe, I notice a different impulse and follow that instead. Whispering her name with a big smile and secretive air, I motion for her to come over to me. "Ruby," I say in hushed tones, as if conveying a top secret message, "in a few minutes, Nika is going to start crying," I say sadly, "and then I'll have to give her all my attention." My body takes on the language of disappointment, "And I don't want that—then I won't be able to give any attention to you." She gives me a knowing look, cocks her head, and smiles. Nothing more needs to be said.

Now, this is a story that many a grandmother or grandfather could tell. At those times when we are feeling calm and patient, or the issue at hand doesn't evoke our own painful memories to bias perception of the child's behavior, any of us could have responded as I did. Why did I need brain science to inform my grandparenting? And what does any of it have to do with psychotherapy?

In this exchange, I am not just having a good day as a grandparent. I am drawing upon research on infant-mother "interactive neurobiological regulation" as guide. Though they may not know the term, new parents quickly become experts at interactive neurobiological regulation. They soon learn which postures are soothing, what tones of voice, which kind of rocking, how much movement. Why do we learn so quickly? Because we ourselves are biologically dysregulated by the infant's cries. Alan Schore calls this "adaptive projective identification:" the infant communicates distress directly to our bodies, and in comforting the infant, we regulate our own discomfort. The sense of soothing and warmth we feel as the baby falls asleep in our arms reflects this

phenomenon. Over time, as parents consistently respond to the infant's distress or pleasure, minimizing the former and maximizing the latter, a nervous system is sculpted to be resilient, to tolerate strong emotions and return to optimal states. Dan Siegel refers to this as the "Window of Tolerance," a window that may be spacious or very narrow depending upon our early experience. Without intellectual awareness of the neurobiological changes happening in their own bodies, attuned parents "auto-regulate" their responses to the infant and young child, overcoming boredom, fatigue, and frustration in order to find (and then repeat ad infinitum) just the right combination of movements, facial expressions, and tones of voice to elicit "optimal arousal" states in the child. No wonder parents with their own histories of trauma and attachment failure can have such difficulty parenting. If the parent's own nervous system is easily dysregulated, if auto-regulation is challenging at the best of times, if the child's cries or tears trigger fear and anger in the parent, then the ability to interactively regulate the child will be compromised. But why would we need to be informed by the neuroscience? Aren't skilled therapists, like attuned parents, intuitive neurobiological regulators?

Science not only can reassure us that our clinical interventions have scientific validity, but it also re-directs our attention to priorities new to traditional psychotherapy practice. In particular, it now offers us a window into clients with histories of neglect, attachment failure, trauma, or exposure to violence. Neuroscience research has established conclusively that early adverse experiences profoundly affect the developing brain. Brain scan studies also demonstrate that talking about traumatic events re-activates neural pathways associated with the threat response but inhibits activity in those parts of the brain that might help clients feel safe in the world or make meaning of what happened in more compassionate ways. Research on attachment and brain development suggests that suboptimal attachment experiences in infancy and early childhood result in compromised development of the brain's "self-soothing center" in the right brain, leading to later difficulty in tolerating stress and strong emotion. In the 21st century, science keeps telling us to pay more attention to the body and nervous system than to the words, emotions, and meaning-making.

"Bob" speaks emotionally about his needy mother and abusive father, railing with anger at their mistreatment. Many years of treatment focused on verbalizing these early memories has left him with greater perspective and a sense of connection to his therapist but has not altered his automatic compliance to the demands of others, sense of being heavily burdened, and periodic rages, usually in response to his children. What brings him with his wife to my doorstep is that both adolescent children are suffering the secondary effects of traumatized parents and dysregulated parenting. His son has just been discharged from a drug treatment program, and his daughter is showing all the symptoms we tend to associate with borderline personality. Having interviewed the children and parents, I think I understand what has been happening, but can I deliver it in a way that they can absorb and profit from? As we all know, parents are extremely sensitive about their parenting and can quickly become defensive if they feel blamed.

As a parent, my heart goes out to them. I know I have bad news to deliver. They want me to fix their children, and my body responds to that imperative with tension. I

have to focus away from my indignation in order to communicate to their right brains, to their hearts. As I think about their own pain, I feel a relaxing and opening to Bob and his wife. Now I can speak to them with a heavy heart and soft facial expression. "When Emmy and Jason were little, and you felt overwhelmed by their needs and incessant crying—when Emmy's tantrums triggered you so much it felt as if she was abusing you—your trauma was becoming their trauma. It's so sad. These beautiful little babies felt like monsters instead of babies." My face reflects my words, and I pause for a moment to let them sink in. "Because their needs dysregulated you, and they were too little to regulate themselves, they got more dysregulated—the crying and tantrums were worse and went on forever—which further dysregulated you, which dysregulated them, and so it went—until they were overwhelmed, and so were you." Again, I pause, and my body language shifts. "I want you both to understand something important. No one is at fault here." I say these words slowly and deliberately with a serious face and gentle but firm tone, knowing that most parents at this point will be experiencing strong somatic responses of anger or shame, which might lead to a defensive argument. I want their collaboration, and their children need them to hear me, rather than being dysregulated by me. I go on. "This is a story of dysregulation (and here I lengthen my spine and put energy into my tone), and no one's fault—the trauma in your bodies is not your fault, and the kids' dysregulation is not their fault. But Jason and Emmy still need parents who can regulate them, and that's our work here." My face is still soft, but my body is communicating that this is not up for negotiation. I am sitting up straight, leaning slightly forward, looking at them intently, and there is a feeling of steel in the core of my body. If they want to work with me, we need to work on their ability to auto- and interactively regulate so as to reverse the harm being done when they flee or fight, rather than parent, when their children are distressed or difficult. I don't need to say, "If you want to work with me" because my body is saying it for me more effectively than words. Both parents look relieved at the end of the session and thank me effusively. I know that I delivered this news better than I ever have in 28 years of clinical practice because I could re-frame this family's story in the light of the neuroscience, relieving all parties of blame, and I knew how to use my body as the vehicle for communicating it in a way that they could take in and digest. Madir Pels, a gifted acupuncturist, calls this phenomenon "sensing the points of receptivity rather than pushing." As therapists, we have to look for the points of receptivity as much with our bodies with our minds. The mind knows where they are likely to be found, while the body can sense these points of entry and deepen into them. This session with Bob and Kathy was powerful for me as well as them: I felt a tenderness towards them, while I also experienced a sense of strength in having acted so decisively to protect their children.

How did I learn to use my body as well as my mind in psychotherapy practice? These are the lessons taught by Sensorimotor Psychotherapy, a body-centered talking therapy approach developed by Pat Ogden, Ph.D. for the treatment of attachment failure and trauma-related symptoms and disorders. Although its techniques are drawn from the body psychotherapy world, its theoretical foundation lies in the neuroscience and attachment research. As a clinical psychologist, what first attracted me to it after 20 years of traditional psychodynamic practice was the opportunity to work with the somatic legacy of trauma and neglect without any requirement to use touch. Now, I value even

more how Sensorimotor Psychotherapy has added years to my "tread life" as a psychotherapist. Studying and later teaching a method that capitalizes on an understanding of the body and nervous system has decreased the stress of psychotherapy practice while increasing its pleasures. It allows me to navigate tumultuous transferential relationships and therapeutic impasses in creative, satisfying, and often very moving ways—as it has with Bob and his family.

A Sensorimotor Psychotherapy visit begins just like any other talking therapy session: with the client's "story." It might be a story about last night's dream, a childhood memory, or the story of a problem or disappointment or hurt in the client's current life. The therapist, though, doesn't just listen to the narrative and emotions but also 'listens' to the body, observing carefully the language of the body that accompanies the language of words. Changes in posture, gestures, patterns of breathing, color in the face, stillness vs. agitation, stiffness vs. floppiness or heaviness: all of these tell us more about the client and the story. At her first visit, 'Andrea' is describing the automatic compliance to others' wishes that has brought her to psychotherapy. As she "tells the story" of her attempts to create a life she envisions as meaningful and the obstacles that defeat her time after time, I am tracking her body and my own. I am observing the details of her physical as well as verbal presentation, looking for recurring patterns. I notice that her body is stiff and still. Her hands are folded in her lap, and her arms are held close to the body. The only movement she makes is a sweeping gesture with her left arm each time she talks about what she envisions. When she describes "folding" when her desires are met with some obstacle, her arm comes in and her hand makes a pushing-down gesture. As I see those movements, I notice a feeling of energy and excitement in my body which leads to a pushing-forward feeling. I lean forward, wanting to interrupt this monologue that drains her energy and mine. But she doesn't pause for breath. As I try and fail to create dialogue, I begin to feel a resignation in my body, a loss of energy, like a balloon deflating. My body is giving up in the face of the "wall of words" she is creating. Finally, she pauses, and my energy comes back—though in a more thoughtful way. I find myself speaking to her in a very slow, soft tone as if talking to a frightened animal. I am speaking gently but with a smile and a tone of interest and curiosity, "Andrea, I want to share something wonderful that I saw as you were telling me about these frustrating experiences. I notice that each time you talk about what you want to do, your arm makes this movement, and every time you talk about what you have to do, your body becomes very still." She looks at her left arm for a moment, as if just discovering it for the first time, and then says, "Yes . . . when I think about everything I want to do, I get excited." And, suddenly, she smiles broadly, leans forward, and opens up both arms wide as if reaching out. Her face lights up, her spine lengthens, and she began to sway as if to music. I mirror her movements so we are facing each other, swaying, with our arms outstretched. We are smiling and laughing. "Yes, I can see your excitement—you come alive, don't you?" Her monologue is now a dialogue but a somatic one. As sessions proceed, I notice a consistent pattern: verbal dialogue is cut off by the "wall of words," but somatic dialogue brings Andrea alive and into relationship.

In addition to memories for events, the body and brain hold muscle memories, autonomic arousal patterns, visceral and perceptual responses that attest to our

experiences. Brain scan research on traumatic memory informs us that, when trauma is remembered, subcortical, nonverbal areas of the brain are activated rather than narrative memory areas. Narrative re-telling of events causes these subcortical neural networks to fire but does not necessarily contribute to changing those firing patterns so that the mind and body can have an experience of relief. As every therapist knows, the intellectual awareness of safety is not sufficient for clients to "know" they are safe now. What therapist hasn't treated dozens or even hundreds of clients who continued to experience a sense of threat and danger long after they found safety? Prior to the neuroscience research, we had no way to know that their experiences were encoded in body structure, in the nervous system, and in patterns of movement and sensation. To know that "It's over now," these clients must feel the sense of safety in the body. How do we help our clients experience that sense of safety with us both in therapy and in the wider world? Here, neuroscience comes to aid of the psychotherapist once again. Brain scan research on the effects of meditation has pinpointed a part of the brain that becomes active when we meditate or simply observe our experience moment-by-moment without reacting to it. Located just behind the middle of your forehead, the medial prefrontal cortex has direct connections to the amygdala, our emotional memory center. When that area becomes more active, the amygdala becomes less active.

Translated into psychotherapy, mindful observation yields a state of dual awareness in which clients can observe their inner worlds without becoming overwhelmed by the emotions or body responses. Although I have always liked the psychodynamic concept of "observing ego," teaching clients to have an observing ego has often been challenging. Each time my client "Terry" experienced worry, the body sensations of increased heartrate and body tension would set off a "domino effect" of negative predictions which could quickly escalate simple anxiety to panic proportions. She would arrive for sessions in a state of desperation, convinced that her husband had cancer or her daughter would never, ever function. I quickly found my body responding with equal desperation, eager to help her see that these were thoughts, not truths, but each time I heeded my body's message, she would respond, "But you don't <u>understand</u>!" If I wanted her to engage her mindful brain, I needed to use my body and mind in a different way. Remembering her quick and curious intellect and her observation that the fear irritated her family members, I paused the next time I felt my body tighten up and my heartrate increase in order to let the sensations settle. As I felt the calm and relaxing in my own body, I let her come to the end of her litany before speaking softly and gently, "It's so frightening, isn't it? To think that something could happen to your loved ones. It drives <u>you</u> to find something to prevent it, and that drives <u>them</u> crazy!" I lean forward with warmth and excitement, "Terry, I know you hate it when these fears push your husband and daughter away, and I am so happy to say that I've just thought of a way for you to get some relief. Isn't that exciting?" Now, I'm smiling broadly, and I can feel the excitement in my body. She responds. My left brain has spoken to her left brain, reminding it that her husband and daughter are pushing her away in response to the anxiety, while my right brain speaks to her right brain, offering a comforting tone and the excitement of a way out. Over the next few weeks, as I teach her how to be mindful of the anxiety rather than react to it, we practice observing each symptom as "just" a body sensation or "just" a thought or "just" an emotion. As we do so, she finds herself

relaxing and calming, followed spontaneously by a more positive thought or two. The use of mindful tracking also helps her to recognize the interaction between her thoughts and her body's autonomic responses. She now can see how the body sensations to a traumatic trigger in turn trigger fearful beliefs and also how changing the body responses leads naturally, without effort, to more positive thoughts. Terry looks and feels more solid now and can catch herself when the more familiar patterns of response engage automatically. In her presence, my body feels like that of a mother seeing her child able to negotiate the world successfully and independently: I feel warmth and pride. I feel more solid, too.

My chronically depressed client enters, head down, chest collapsed, a picture of defeat before a word is uttered between us. If I empathize with her state, we will both find our autonomic arousal falling into the doldrums, and my chest will collapse with the same feeling of heaviness I see in hers. Instead, I say with a smile, "Boy, doesn't depression suck?!" And we both laugh. Then I get out a diagram showing the highs and lows of autonomic arousal with the Window of Tolerance in the middle. As she and I look at it together, I see some telltale signs that she is coming alive. I know we are on the right track. Later on, as we begin to talk about what happened this week that spurred the deepening depression, her body tells me again that she is collapsing into it, and I ask her, "Would you be willing to humor me? Let's try one of those nutty things I'm always suggesting." She laughs in agreement. "Notice what happens if you lengthen your spine. . ." With a sigh, she does so, and again I see more energy in her body. "Notice what that's like. . . is that better or worse?" "Definitely better," she says. Then we play with it some more: what happens if she lengthens her spine and raises her chin a little bit. She laughs, "I feel like the Queen of England." I laugh in shared enjoyment and mirror it: "Yes, that <u>is</u> the Queen of England look! I like it, too." By the end of the session, we haven't talked about the precipitant or what to do next, but she is in now in a different physical state, and she is more mindful, charged with "homework" to practice being the Queen of England. I joke with her, "Maybe this is how you can weather any storm. It's all in the back and chin, isn't it?" Instead of feeling defeated at the end of a session, as I often used to feel with her, I instead feel energized. I can laugh to myself as I remember our shared experience in the "Queen of England" posture.

Neurobiological regulation in psychotherapy requires "right brain to right brain" communication. It requires the therapist to attend more closely to the impact of words and body language on the client's nervous system and somatic experience. My brilliant words will fail to be heard if I dysregulate the client as I utter them. Instead of paying such careful attention to the client's story and meaning-making, I must pay equal or greater attention to the client's nervous system and bodily communication. Ironically, this is an art form that most of us instinctively engage when we relate to babies and small children, when we see a puppy or kitten. Without conscious thought, we experiment with the language and body language that engages small beings until they respond positively. Why not bring that intuitive ability into the office?

'Bettina,' a 40 year old woman diagnosed with borderline personality disorder, enters my office. Week after week, the content of Bettina's communication is her

therapist: I am not available enough, I don't care enough, I try to teach her things rather than empathize with her pain, I don't sit close enough to her, I don't call her back between sessions in a timely manner when she is upset. She complains that there is never time to talk about her feelings—without recognizing that we spend the majority of our time talking about her anger at me! I notice that, even as I usher her into the office, my body is tense and pulled in. She has pointed out that I move my chair slightly back and away from her when we sit down! My jaw is tight, and, even before she begins her litany of complaints, I feel a sense of defensiveness. My boundary muscles (the muscles across the midriff and down the sides) are tightly engaged or "armored," as we say in Sensorimotor Psychotherapy. Determined not to "get inducted" into a struggle with her, as I have in countless sessions, I deliberately relax my body as I feel it wanting to tense in response to her criticism. It takes some work but feels much better. It gives me a welcome sense of lightness and distance from her criticisms. Very shortly, I unexpectedly find myself laughing as she complains that I am rigid. "Poor Bettina!" I say, "I am truly a nightmare as a therapist for you, aren't I? Your poor thing! I don't know how you put up with me." She relaxes slightly, and a tiny smile plays on her face: "I don't know how I put up with you either. I'm glad you appreciate that." Although my body tenses slightly at that last remark, I relax it again. More words come to me spontaneously: "It's just too bad that you came to me at this stage of my career—I'm pretty set now in my ways of doing psychotherapy—I'm like an old dog who can't learn new tricks—and it's so hard on you." Now we are both smiling and laughing. The rest of the session proceeds smoothly. Both bodies are relaxed, and there is now a felt sense of connection between us, the kind of connection for which she yearns. I remind myself to again pay more attention to my bodily responses than to her words next week. I am aware of feeling of warmth toward Bettina that is both new and refreshing.

It all goes back to Ruby pestering her little sister. Had I said sternly, "Stop bothering your younger sister," as my body was compelling me to do, Ruby would have been dysregulated and become angry and defensive or dissolved into tears. Nika would have been at risk for more aggressive behavior. Instead I was a neurobiologically regulating grandmother: "Hey, Ruby, come over here," I said with a smile as if we were about to have a secret but wonderful conversation. I saw her body relax immediately, and the next words I said further regulated her: "If Nika cries, I'll have to give her all my attention." But was it the words I so carefully chose? Or the fact that my face looked sad when I said, "I'll have to give her all my attention"? Or how happy and excited I appeared when I added, "and I want to be able to give you attention, too"?