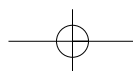


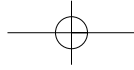
## Attachment as a Sensorimotor Experience: The Use of Sensorimotor Psychotherapy

Janina Fisher

In the first few minutes after birth, newborn and mother generally meet heart against heart as the baby is laid across the mother's chest. These and other early experiences of attachment are body-to-body experiences: holding, rocking, feeding, stroking, gaze-to-gaze contact. Rather than using words, we communicate to infants with coos, mmmms and terms of endearment that evoke a lilt in the voice of the speaker. Preverbal children take in the warm gaze, the smile, the softness or playfulness and respond with smiles, vocalizations, and chuckles of delight, relaxing or soothing or brightening in a dyadic dance with their care-givers (Schore, 2001). But infants and young children equally take in the body tension of the care-giver, the still face (Tronick, 2007), the irritable tone of voice or rough movements. Their immature nervous systems are easily alarmed by intense emotional reactions, loud voices, sudden movements or manifest anxiety in the mother (Lyons-Ruth, Dutra, Schuder, & Bianchi, 2006). Whether care-giving promotes secure attachment or is 'frightened or frightening' (*ibid.*), these 'right brain to right brain', body-to-body experiences are later remembered not as visual or verbal narratives but in the form of 'body memories', procedurally learnt emotional, autonomic, motoric, visceral, and meaning-making states (Ogden, Minton, & Pain, 2006; Tronick, 2007).

If attachment styles reflect an adaptation to a particular care-giving environment and a given care-taker, then we might do well to think of them as procedurally learnt, held in the non-verbal memory system for procedures: that is, actions and responses. Grigsby and Stevens (2002) describe procedural learning as mediating 'what we do with one another' while declarative memory captures 'what we know about one another' and emotional memory how our emotional state is altered in relationship to one another. The infant's muscle memories of tensing in response to care-givers who were unpredictable and alarming may remain encoded in the body as a lifelong tendency in attachment





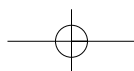
## 100 ATTACHMENT

---

relationships. Insecure–avoidant tendencies to orientate internally or towards inanimate objects, away from care-givers, is as much a body experience as anxious arousal and inability to orientate other than to the care-giver in insecure–ambivalent tendencies. Autonomic memories of alarm or shutdown in response to frightening behaviour might also be encoded as automatic reactions to attachment stimuli and re-evoked in later relationships or contribute to preoccupied, dismissing, or disorganized/unresolved attachment patterns (Lyons-Ruth, Dutra, Schuder, & Bianchi, 2006) in adulthood.

As research increasingly attests, early childhood attachment experiences play a crucial role in the development of affect regulation (Schoore, 2003). Affect tolerance in adulthood appears to be directly tied to procedural learning of the autonomic nervous system (Ogden, Minton, & Pain, 2006) and optimal development of the right orbital prefrontal cortex (Schoore, 2001), the brain's self-soothing centre. In order for children to develop a 'window of tolerance' (Siegel, 1999) for emotions and arousal, they require the repeated emotional–somatic experience of 'interactive regulation', that is, soothing or down-regulating when sympathetically aroused and distressed, up-regulating in the context of parasympathetically mediated low responsiveness. Each attachment pattern reflects a different autonomic adaptation to the relational environment: the high sympathetic arousal found in insecure–ambivalent patterns, parasympathetic, dorsal vagal tendencies of insecure–avoidant babies, and the bi-phasic alternations observed in disorganized attachment reflect adaptation to a particular kind of care-giver or care-giving environment.

Mariela, a young woman in her early twenties, came with her mother to consult about difficulties with intense emotional reactivity to disappointment or misattunement in her relationships with men. 'I don't think it has anything to do with trauma, though. My only trauma,' she said, 'was that I spent my first nine months of life in a Romanian orphanage – but that can't be a trauma because I don't remember it.' After hearing about Mariela's intense swings of approach and avoidance in intimate relationships and difficulties with affect regulation resulting in both anxiety and depression, I felt comfortable explaining to both mother and daughter that her behavioural and emotional responses were often found in unresolved attachment patterns secondary to 'frightened and frightening' care-giving (Main & Hesse, 1990, Lyons-Ruth, Dutra, Schuder, & Bianchi, 2006). The concurrent experiences of profound neglect and fear, well documented in studies of Romanian orphans and orphanages, have been found to leave significant functional, intellectual, emotional, and autonomic effects (Chugani et al., 2001). Although she had no visual or declarative memories of her first nine months, I assured them, she was 'remembering' it emotionally and behaviourally. Hearing this, her mother tearfully recalled the signs of Mariela's traumatic experiences: 'I know this is right. When you came to us, I remember that you kept arching your back and pulling away from me



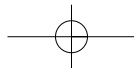
whenever I tried to hold you. I didn't understand why you didn't want to be held.' Mother and daughter shared a moment of sadness and gratitude that this mother had patiently persisted in helping her daughter to bond through those difficult early years rather than becoming dysregulated herself.

As Grigsby and Stevens (2002) point out, procedural and emotional memory systems are both largely unconscious and generally experienced as action tendencies and emotional reactions independent of the events that shaped them:

The neural substrate for procedural learning . . . appears to develop prior to the capacity for declarative learning. This means templates for habitual behaviors may be acquired, and the behaviours may become relatively automatic and routine, before the child has an episodic memory system capable of remembering the events that produced these behaviors. In situations involving both fear conditioning and procedural learning, very young children are likely to experience a kind of learning (habits, conditioned responses) that is dissociated from the context. In other words, because of the relative independence of these systems, it may be impossible to recall the events that led to the acquisition of certain types of behavior. (pp. 17–18)

Mariela had no declarative memory of her first nine months in the orphanage, but procedural and emotional memories of that experience affected not only her ability to attach to her adoptive parents but also her adult intimate relationships. Without declarative memories, psychodynamic treatment had not successfully helped her to gain insight into these patterns because, as she kept saying, 'How could I have been affected by an experience that I don't remember?' If we expand our understanding of 'memory' to include emotional and procedural memory systems, then Mariela had many memories: her body remembered that closeness is dangerous, leading her to reject boy friends if they were kind or if the relationship grew closer. As romantic relationships endured despite her reactions to the closeness, she typically became increasingly hypervigilant, suspicious, and reactive to any failure of attunement or attention. Next, she would find herself erupting in anger and threatening to leave. Over and over, fight/flight responses alternated with proximity-seeking. These body-centred, autonomically driven patterns of reaction were inaccessible to verbal dialogue, requiring a therapeutic approach that could reach below the level of conscious experience and declarative memory to subcortical emotional memory and body memory for automatic tendencies.

Sensorimotor psychotherapy (Ogden, Minton, & Pain, 2006) offers just such an avenue for addressing attachment patterns at a subcortical procedural level. Developed in the 1980s by Dr Ogden, as a body-centred talking therapy, sensorimotor psychotherapy is designed to specifically address the bodily and autonomic symptoms of trauma and attachment-related disorders, as well as the



## 102 ATTACHMENT

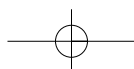
---

cognitive–emotional aspects, without requiring the use of hands-on interventions. Consequently, it is easily integrated into traditional inpatient and outpatient treatments, often so seamlessly that the patient is not aware that a different modality is being introduced. Sensorimotor psychotherapy incorporates interventions drawn from psychodynamic psychotherapy, gestalt therapy, cognitive–behavioural approaches, and the Hakomi method of body psychotherapy (Kurtz, 1990).

Its theoretical principles stem from neuroscience research findings on the effects of both attachment and traumatic experiences on the brain and body, so that the moment-to-moment therapeutic experience reflects an understanding not only of the patient's verbalizations, but also the language of the brain and body. A typical session begins, as would most psychotherapy sessions, with a client's narrative. However, rather than engaging in a conversation 'about' the experience, the sensorimotor psychotherapist focuses instead on noticing the sequence of emotional, bodily, and cognitive responses to the narrative. Brain scan research on traumatic memory demonstrates that, when traumatic experiences are recalled, subcortical, non-verbal areas in the right hemisphere of the brain are activated rather than declarative memory centres in the prefrontal cortex (van der Kolk & Fisler 1995). As the client narrates historical events or describes present crises, the therapist not only attends closely to the narrative, but also 'tracks' the signs of subcortical remembering and procedural learning: postural patterns, repeated phrases, affect tolerance and intolerance.

As Mariela described angrily attacking her nurturing boyfriend, then begging him tearfully to forgive her, her body curled up slightly and she leaned forward, her tear-filled eyes not leaving my face and gaze. Then, her demeanour began to shift in rhythm with her account of the 'little things' that activated her nervous system and mobilized a fight response: her boyfriend arriving late, being overly solicitous ('too nice'), failing to remember things important to her, being kind when she was angry. The memories of what tended to provoke her fight/flight responses were followed by her voice deepening and spine lengthening as she sat up straight, looked me strongly in the eyes, and spoke in a tone of anger and sarcasm. Mariela's body was telling me the story. All of the cues that evoked these shifts in affect and body experience were attachment-related: all involved behaviour on the part of the other inviting 'too much' closeness or creating 'too much' distance. Too much closeness, I noticed, evoked fight or flight reactions, while too much distance evoked panic, sadness, and collapse in her body. Her body literally became unable to support her at those times, while in the fight/flight state, her body posture and muscle tension supported a strong, solid stance both physically and emotionally. In the latter, she felt as if she did not need anyone; in the former, she felt lost and afraid.

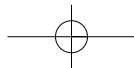
Narrative retelling of events can cause these subcortical neural networks to fire, but does not necessarily contribute to changing those firing patterns so



that the mind and body can have an experience of relief (van der Kolk, 2006). In sensorimotor psychotherapy, the therapist attempts to help the client 'transform' procedurally learnt patterns from the 'bottom up' (Ogden, Minton, & Pain, 2006). This process involves a simple but precise series of steps: as the therapist begins to note the unfolding psychophysiological patterns, he or she gently draws the client's attention to those patterns. Rather than interpreting what is noticed, the therapist mirrors it in simple words ('I notice when you talk about your boyfriend being nice, your tears dry, you sit straight up, your voice deepens – things really shift, don't they?'), inviting the client to 'notice' or 'study' the internal and body experience. These simple mirroring statements are carefully chosen and 'pitched' so that they evoke mindful noticing without dysregulating or shaming the client. Attention to attunement is expressed through the therapist's body: perhaps the face softens, and the tone becomes one of curiosity and fascination, or the therapist leans forward or back in rhythm with the client. Interpersonal neurobiological regulation in psychotherapy requires 'right brain to right brain' communication, the therapist pays equal or greater attention to the client's nervous system and bodily communication than to language and meaning-making. The right brain monitors the impact of words and body language on the client's nervous system and somatic experience, then adjusts breathing, tone of voice, energy level, facial expression accordingly. In secure attachment contexts, care-givers intuitively use right brain communication, experimenting with language and body language until the child's emotional and autonomic state is within the window of tolerance.

'Making contact', as this type of communication is termed in sensorimotor psychotherapy, has two purposes: to foster 'dyadic dancing' and a felt sense of the therapist's attunement moment to moment, but also to direct mindful attention to the unfolding body experience. Directed mindfulness capitalizes on neuroscience findings that mindfulness meditation increases activity in the medial prefrontal cortex (thought to be an integrative centre as well as responsible for internal awareness) and decreases activity in the amygdala, thus facilitating regulation of autonomic arousal (Lazar et al., 2000; Creswell, Way, Eisenberger, & Lieberman, 2007).

As Mariela was helped to 'notice rather than draw conclusions' about these patterns, she became aware of the physical sensations of 'opening' in the chest and heart area when she recalled the first weeks of being in love with a boyfriend, how warm she felt inside during those early stages. Mariela's intense yearning for the physical and emotional sensation of contact with another (perhaps a body memory of her attachment need in the orphanage) left her body open and exposed, which she expressed by opening her arms wide to show her therapist the extent of her vulnerability at these times. Without an ability to open by degrees as a relationship deepened, she was left vulnerable to the inevitable misattunements found in any relationship. Describing what



## 104 ATTACHMENT

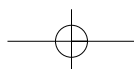
---

happened next as a boyfriend might arrive late or forget something important to her, she folded her arms across her chest and set her chin. As the therapist interrupted the narrative of these empathic failures to help her notice the posture, she laughed. 'I guess I just close up and my body decides never, ever to open again.'

In sensorimotor psychotherapy, the body is used both as a source of information about procedurally learnt tendencies and also as a vehicle for intervention (Ogden, Minton, & Pain, 2006). Therapist and client shift the focus of attention back and forth from narrative to body experience to meaning-making, then back to the body. For Mariela, the newfound awareness of her body's role in these relational impasses led to a discussion of, and somatic education about, attachment and the body. Using her arms, the therapist demonstrated how a child in a secure attachment-promoting family might learn to tolerate separations by closing her chest a little and refusing to say goodbye, then open physically and emotionally just a little to the care-taker who came to mind her, then close a little if tired or feeling some separation anxiety, then open again on reunion with the parent, while still able to close again to screen out any overstimulating or distressing interaction.

This embodied explanation encouraged Mariela to take the next step in a sensorimotor treatment: to see how movement and action might contribute to changing the attachment 'memories' in her body. Young children in secure attachment-promoting environments learn early on to execute 'acts of triumph', to use their bodies to say 'go away', or 'come closer', or 'I can do it myself'. Successful execution of these actions generally increases the ability to auto-regulate in the face of the inevitable disruptions and separations of childhood. In Mariela's case, it was adaptive for her body to retain the capacity for wide-open receptivity in the orphanage environment to maximize any relational contact, but also to develop an equally strong capacity for 'armouring' in the context of neglect and danger.

After demonstrating with her arms how a child might develop healthy flexible somatic boundaries, the therapist invited Mariela to use her arms in the same way and 'notice what happens'. In a mindfulness-based therapeutic modality, attention is repeatedly directed away from the past to the present moment: 'Right here now, how does it feel to close your chest just a little? What do you notice? Is it comfortable or uncomfortable?' Mariela explored how it felt in her chest and heart area as she moved her arms out from her body in a wide-open posture, then slowly brought her arms in as if making a circle. She was aware of feeling more solid and less exposed as her arms closed the circle and noticed that it was a different and more comfortable feeling than the arms-across-the-chest posture procedurally evoked by misattunements and disappointments. A thought came up that she would miss the ecstatic sense of closeness that went with the early weeks of a relationship, but that was quickly



followed by her awareness of the price she paid for that euphoria. The therapist again demonstrated how the arms might open wider as she got to know someone well enough to develop trust or at least be able to anticipate what disappointments would ensue in a particular relationship.

In subsequent weeks of therapy sessions, Mariela worked on a number of movements related either to regulating her affect and arousal or developing new procedural tendencies in relationship. As she experimented with reaching out towards someone with her arm and hand, she could feel her body tense and an impulse to pull her hand back, but she also observed the same reaction when the therapist reached out towards her. With the yearning for closeness that had dominated her consciousness since her teenage years came automatic defence responses: tensing, bracing, autonomic arousal. Observing these tendencies allowed Mariela to practise relaxing her body as she reached out or as the therapist reached out to her. Experimenting with a gesture of reaching out with one hand and making a stop gesture with the other afforded her the opportunity to experience without words how healthy boundaries allow closeness to others to feel safer.

In the words of Solomon (2011), 'Attachment is the infant's need to be safe from danger. We are not born securely attached. To the infant, the world is not a safe place'. Attachment relationships are the body's way of ensuring infant safety, and when safe attachments are not available, the body must adapt. Autonomic, muscular, perceptual, and movement tendencies are available even to infants as a source of support and regulation, as demonstrated in Beebe and colleagues' research (2009). Early on, the baby's body must make an adaptation to the quality of the attachment field, laughing and smiling while crying or collapsing and shutting down emotionally and autonomically. Sensorimotor psychotherapy allows client and therapist to work with these very early preverbal interactions at the level of muscle and autonomic memory. The experience of being able to explore empowering actions in the context of attuned interactive psychobiological regulation is not unlike the experience of securely attached young children. In sensorimotor work, though, the client is encouraged to become a mindful witness as the process unfolds and inner experience is mentalized and verbalized.

As Mariela was able to notice her bodily and emotional reactions as they unfolded, rather than retrospectively, she was able to inhibit explosive responses and relax the body in relationships. Practising her new movements and somatic resources inside as well as outside of therapy helped her to have alternatives when dysregulated by attachment hopes and fears. Finally, her ability to stay present in the context of emotion allowed her to witness being witnessed by her therapist and by those she loved. 'Hijacked' by the body memories of abandonment and threat, Mariela had not ever been able to take in the experience of being 'seen' and valued by others in her life. Witnessing

their witnessing began to challenge her shame and sense of defectiveness. Mariela has discovered that the experience of safety in relationship is as much a body experience as it is an emotional one. When arousal is within the window of tolerance, when the body feels both solid and relaxed, when we can mentalize, and when we can tolerate a gamut of emotions without feeling either overwhelmed or numb, we know we are finally 'safe'.

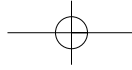
### References

- Beebe, B., Jaffe, J., Markese, S., Buck, K., Chen, H., Cohen, P., Bahrick, L., Andrews, H., & Feldstein, S. (2009). The origins of 12-month attachment: A microanalysis of 4-month mother–infant interaction. *Attachment & Human Development, 12*(1–2): 1–135.
- Chugani, H. T., Behen, M. E., Muzik, O., Juhász, C., Nagy, F., & Chugani, D. C. (2001). Local brain functional activity following early deprivation: a study of postinstitutionalized Romanian orphans. *NeuroImage, 14*, 1290–1301.
- Creswell, J. D., Way, B. M., Eisenberger, N. I., & Lieberman, M. D. (2007). Neural correlates of dispositional mindfulness during affect labeling. *Psychosomatic Medicine, 69*: 560–565.
- Grigsby, J., & Stevens, D. (2002). Memory, human dynamics and relationships. *Psychiatry, 65*(1): 13–34.
- Kurtz, R. (1990). *Body-centered Psychotherapy: The Hakomi Method*. Mendocino, CA: LifeRhythm.
- Lazar, S. W., Bush, G., Gollub, R. L., Fricchione, G. L., Khalsa, G., & Benson, H. (2000). Functional brain mapping of the relaxation response and meditation. *Neuroreport, 11*(7), 15 May 2000.
- Lyons-Ruth, K., Dutra, L., Schuder, M. R., & Bianchi, I. (2006). From infant attachment disorganization to adult dissociation: relational adaptations or traumatic experiences? *Psychiatric Clinics of North America, 29*: 1.
- Main, M., & Hesse, E. (1990). Parents' unresolved traumatic experiences are related to infants disorganised attachment status. In: M. Greenberg, , *Attachment in Pre-school Years: Theory, Research and Intervention* (pp. ??–??). Chicago, IL: University of Chicago Press.
- Ogden, P., Minton, K., & Pain, C. (2006). *Trauma and the Body: A Sensorimotor Approach to Psychotherapy*. New York: W. W. Norton.
- Schore, A. N. (2001). The effects of relational trauma on right brain development, affect regulation, and infant mental health. *Infant Mental Health Journal, 22*: 201–269.
- Schore, A. N. (2003). *Affect Dysregulation and Disorders of the Self*. New York: W. W. Norton.
- Siegel, D. (2007). *The Mindful Brain: Reflection and Attunement in the Cultivation of Well-being*. New York: W. W. Norton.
- Siegel, D. J. (1999). *The Developing Mind: toward a neurobiology of interpersonal experience*. New York: Guilford Press.

Q1:  
Please supply page nos.

Q2:  
Siegel 2007 is not cited in the text. Please either insert a citation where relevant, or delete the entry, thanks.





- Solomon, M. (2011). The trauma that has no name: early attachment issues. Presentation at the Psychotherapy Networker Conference, Washington DC.
- Tronick, E. (2007). *The Neurobehavioral and Social-emotional Development of Infants and Children*. New York: W. W. Norton.
- Van der Kolk, B. A. (2006). Clinical implications of the neuroscience research in PTSD. *New York Annals of Science*, 1–17.
- Van der Kolk, B. A., & Fisler, R. (1995). Dissociation and the fragmentary nature of traumatic memories: overview and exploratory study. *Journal of Traumatic Stress*, 8(4): 505–525.
- Van der Kolk, B. A., McFarlane, A., & Weisaeth, L. (Eds.) (1996). *Traumatic Stress: The Effects of Overwhelming Experience on Mind, Body, and Society*. New York: Guilford Press.

