

SIX TIPS FROM SCIENCE

Informing the EMDR Treatment of Very Early Trauma & Neglect



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RECENT DEVELOPMENTS

- Review six findings in the science of attachment, affect, trauma, dissociation (many reviewed in Lanius, Paulsen & Corrigan, in press)
- Implications for treatment of very early trauma and neglect.
- Foundations for innovations for EMDR processing and repairing attachment injuries in the first years of life (O'Shea, 2009, O'Shea & Paulsen, 2007; a joint book in preparation)

AFFECTIVE NEUROSCIENTISTS

Top/Bottom vs. Left /Right Hemispheres



Jaak Panksepp, Ph.D.

Allan Schore, M.D.

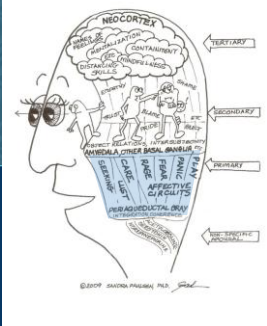
OVERVIEW OF THE SIX TIPS

1. Affect is hardwired, subcortical & requires no learning.
2. Babies learn prenatally
3. Basal ganglia learning defines relationship templates
4. Ventral vagal activation enables change
5. The right hemisphere holds somatic, implicit, relational and emotional experience
6. Imagination potentiates change in the brain

1. AFFECT IS HARD-WIRED, SUBCORTICAL AND REQUIRES NO LEARNING

- Panksepp experimentally demonstrated in rats
- Subcortical nature of core affect (Panksepp & Bivens, 2012; Panksepp, 1998)
- RAGE, FEAR, PANIC (substrate for sadness), CARE, LUST, SEEKing, and PLAY
- There from birth and require no learning
- Called “Primary Affective Processing”

1. AFFECT IS HARD-WIRED, SUBCORTICAL AND REQUIRES NO LEARNING



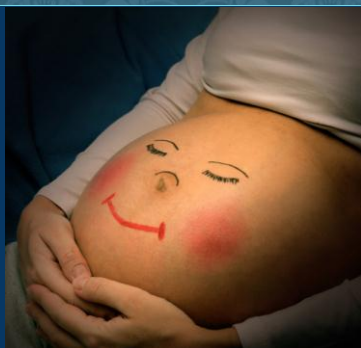
1. AFFECT IS HARD-WIRED, SUBCORTICAL AND REQUIRES NO LEARNING

- CLINICAL IMPLICATION for EMDR
- Accessibility to direct processing via BLS for affect regulation, per Panksepp
- Articulated by O'Shea, O'Shea & Paulsen
- Clears and resets each of the basic circuits
- Process without an affective load, utilizing neocortical capacity for objectivity, mindfulness
- How it looks, NOT how it feels

1. AFFECT IS HARD-WIRED, SUBCORTICAL AND REQUIRES NO LEARNING

- Clear and available circuits enhances ability for subsequent trauma processing
- May be repairing the I/thou of intersubjectivity normally acquired during empathic attunement in attachment period

2. BABIES LEARN PRENATALLY



2. BABIES LEARN PRENATALLY

- DeCasper et al: Mothers read the Dr. Seuss story aloud repeatedly before birth. At birth, babies were hooked up to recordings which they could select by sucking on a non-nutritive nipple. After repetition, babies sucked at whatever speed was necessary to obtain their mother's voice reading "The Cat in the Hat.

2. BABIES LEARN PRENATALLY

- Kick Game: Babies kick, the parents touch the abdomen and say, "Kick, Baby, kick!" When the baby kicks, they move to a different location and repeat. Babies soon learn to kick on cue.
- Ultrasound of babies developing gestures, habits at 20 weeks which persist postnatally.

2. BABIES LEARN PRENATALLY

- Musical passages heard prenatally are preferred immediately after birth. French mothers repeated a rhyme daily from week 33 to week 37 of gestation. Unborn babies showed memory and learning for this rhyme and not for others.
- Babies learn to orient to a speaker of their native language as early as 16 weeks. By 27 weeks of gestation, a baby's cry already contains some of the parameters of the mother's speech, and can be distinguished from those of another language speaker's.

2. BABIES LEARN PRENATALLY

For more information on these findings:

The Association for Prenatal and Perinatal Psychology and Health

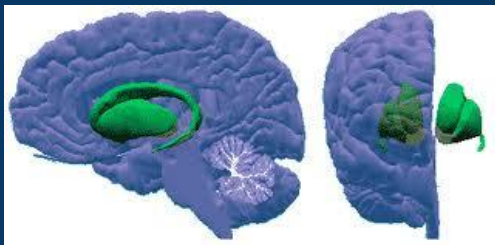
www.birthpsychology.com

2. BABIES LEARN PRENATALLY

IMPLICATIONS:

- Lends support to the possibility that pre-birth experience might be reprocessed with EMDR, in implicit memory, when proper targeting is employed,
- ET step 4 processing by time frame beginning from the beginning, repairing in imagination.
- Whether memory, mental construct, or vivid imagination, reparative for some people

3. BASAL GANGLIA LEARNING DEFINES RELATIONSHIP TEMPLATES



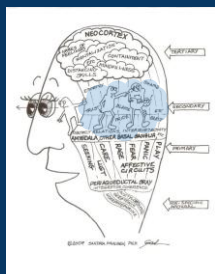
3. BASAL GANGLIA LEARNING DEFINES RELATIONSHIP TEMPLATES

- Amygdala & other basal ganglia - locus of object relations learning (Panksepp & Bivens, 2012).
- Secondary affective process level: perceptions combine with affect → conditioned responses
- A dedicated locus of learning in the attachment period, so important for social functioning

3. BASAL GANGLIA LEARNING DEFINES RELATIONSHIP TEMPLATES

Secondary Affective Processing

- Object Relations
- Relationship Templates
- Amygdala and other basal ganglia



3. BASAL GANGLIA LEARNING DEFINES RELATIONSHIP TEMPLATES

- Fear responses, fight/flight experience, are a basis for maladaptive object relations learning
- Learned in infancy, these templates are reenacted in adult relationships without access to explicit memory, but appearing in relationship problems, e.g., fearful avoidance, hostility, acting out, etc

3. BASAL GANGLIA LEARNING DEFINES RELATIONSHIP TEMPLATES

- When subcortical affective circuits were overwhelmed due to trauma and/or no help for baby with affect regulation, and attachment failures resulted in shame, narcissistic injury, and many resulting symptoms
- Introjection of the caretaker or perpetrator's perspective for survival, with shamed obliteration of the perspective of the child's self → perpetrator loyalty, sinewy attachment

3. BASAL GANGLIA LEARNING DEFINES RELATIONSHIP TEMPLATES

- Repairing the very early developmental milestones related to intersubjectivity (e.g. Trevarthan) - have implications for the treatment of traumatically induced injury and impaired object relations,
- Capacity to flexibly change the view of self as other and view of other as self of that other, attuned, empathic

3. BASAL GANGLIA LEARNING DEFINES RELATIONSHIP TEMPLATES

IMPLICATIONS

- Utilizing observing ego or mindfulness, or objectivity itself activates neocortical resources, while deeply accessing deep structures holding object relations templates
- A partial basis for repairing intersubjectivity and empathic capacity

3. BASAL GANGLIA LEARNING DEFINES RELATIONSHIP TEMPLATES

IMPLICATIONS

- These early deep structures, though not entirely subject to explicit memory, are accessible in reenactments in the therapeutic transference field even during EMDR processing and certainly during the image-free somatic and affective nuances of processing implicit memories
- Story emerges in the non-verbals of processing early trauma by time frame

3. BASAL GANGLIA LEARNING DEFINES RELATIONSHIP TEMPLATES

IMPLICATIONS

- Work with parental introjects using ego state therapy, giving it a voice in the first person, adding energy to that point of view
- A way to intervene directly on that deep level, where the parent's view was the only one that mattered and baby's was severed by shame, enshrined in symptoms
- Loosen the fixity of the grip of that intersubjective injury then proceed to process sympathetic arousal - - adding 3-in-1 oil

4. VENTRAL VAGAL ACTIVATION ENABLES CHANGE

Polyvagal Theory of Resources and Social Engagement. The Ventral Vagal Nervous System (Porges, 2012)

Although not experimentally derived like Panksepp's affective circuits findings, Porges has theoretically postulated a second parasympathetic nervous system.

4. VENTRAL VAGAL ACTIVATION
ENABLES CHANGE



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ENABLES CHANGE

- In contrast to sympathetic nervous system fight/flight, or the other parasympathetic “dorsal vagal” nervous system freeze, surrender, prepare for death,
- Ventral vagal is implicated in connection, social engagement, anything life enhancing and resourcing
- It provides a basis for understanding the role of the therapeutic relationship, of grounding, and more generally, resourcing, in stabilizing the client prior to trauma processing,

4. VENTRAL VAGAL ACTIVATION
ENABLES CHANGE

- In highly complex cases, resourcing interweaves that enable associative linkages to adaptive neural networks (Shapiro’s definition of interweave)
- Strengthen the client during stuck memory processing especially of surrender or other dorsal vagal experience held in implicit memory.

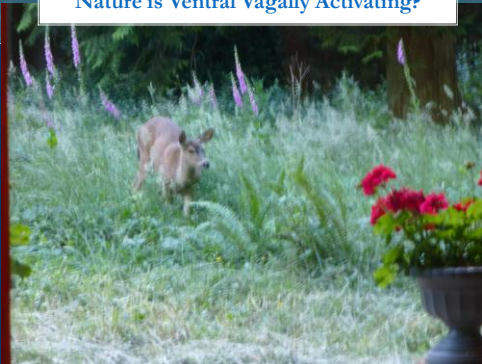
4. VENTRAL VAGAL ACTIVATION
ENABLES CHANGE

- Processing in the early years doesn't spontaneously shift to resources, because the injury was that the child had little of his own resource, and was left unhelped, unheard, uncherished, even alone in a world with no people.
- To repair, need to activate ventral vagal nervous system with our presence, empathic attunement, other resourcing, installations, poodle.

Poodle Resourcing Activates Ventral Vagal



Nature is Ventral Vagally Activating?



5. RIGHT HEMISPHERE IS SOMATIC, IMPLICIT, RELATIONAL, EMOTIONAL

The Right Hemisphere is the Locus of Somatic, Implicit, Relational and Emotional
A.N. Schore

1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18
19	20	21	22	23	24	25	26	27
28	29	30	31	32	33	34	35	36
37	38	39	40	41	42	43	44	45
46	47	48	49	50	51	52	53	54
55	56	57	58	59	60	61	62	63
64	65	66	67	68	69	70	71	72
73	74	75	76	77	78	79	80	81
82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99
100								

5. RIGHT HEMISPHERE IS SOMATIC, IMPLICIT, RELATIONAL, EMOTIONAL

- Right hemisphere implicit memory, non-verbal experience, emotional memory, unworked trauma, relational, attachment experience, not subject to direct recall via explicit memory
- Body Keeps the Score – van der Kolk

5. RIGHT HEMISPHERE IS SOMATIC, IMPLICIT, RELATIONAL, EMOTIONAL

- When processing very early trauma, much non-narrative traumatic experience is projected into the transference field, and erroneously attributed to present circumstances rather than to accessing implicit memory.
- Dual attention is key because of that disorientation as right hemisphere experience moves into the moment to be perceived and processed in EMDR

5. RIGHT HEMISPHERE IS SOMATIC, IMPLICIT, RELATIONAL, EMOTIONAL

IMPLICATIONS

- The critical role of the therapist in working very early memory is to secure dual attention awareness not only with grounding in present time, but
- encouraging a stance of mindful, observing curiosity, to hear the story told in the felt sense, to create a fitting narrative to the non-verbal story.....

5. RIGHT HEMISPHERE IS SOMATIC, IMPLICIT, RELATIONAL, EMOTIONAL

- Helping the client understand that their story is revealed not in “picture flashbacks” but by a diverse panoply of “flashbacks” that may be entirely somatic, affective, and relational, because they are right hemisphere holdings, without explicit imagery or narrative.

5. RIGHT HEMISPHERE IS SOMATIC, IMPLICIT, RELATIONAL, EMOTIONAL

IMPLICATIONS

Story tells itself during ET processing in:

- Reenactments
- Somatic symptoms
- Affect
- Therapists mirror neurons
- Projection, projective identification
- Moreintuition, energy field

6. IMAGINATION POTENTIATES THE BRAIN



6. IMAGINATION POTENTIATES THE BRAIN

Panksepp's research with the PLAY circuit informs our understanding of imagination:

- a) Imagination employs the PLAY circuit.
- b) Although the PLAY circuit is not dependent upon neocortical function, PLAY has a profound upward impact on neocortical activation.
- c) PLAY effects more of the brain than any other circuit.
- d) It often involves sustained attention, imagined movement, and execution of the movement.

6. IMAGINATION POTENTIATES THE BRAIN

- One study treated phantom limb pain with imagination (Moseley; 2005). The combination of sustained attention and imagined motor movements was the preparatory activity necessary for patients to benefit from the mirror box treatment that had previously failed to yield results for them without preceding imagery.

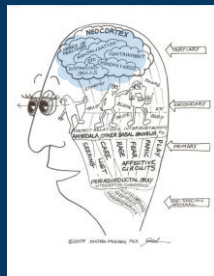
6. IMAGINATION POTENTIATES THE BRAIN

IMPLICATIONS:

- When we ask clients to imagine what an emotion looks like, we are normalizing it and reinstalling it without an affective load on it
- When we employ objectivity instead of the subjective felt sense of an emotion, we may be repairing the circuit top down by adding neocortical mindful awareness

6. IMAGINATION POTENTIATES THE BRAIN

- Neocortex
- Emotional Skills
- Facial Recognition
- Mindfulness
- When we look at something with objectivity



6. IMAGINATION POTENTIATES THE BRAIN

IMPLICATIONS

- Resetting affective circuits step appears to work directly on the subcortical circuits,
- restoring those innate emotional resources to those who had to clip their dashboard indicators early in life,
- because it wasn't safe to have needs and feelings, or only the parents were permitted to have them.

6. IMAGINATION POTENTIATES THE BRAIN

IMPLICATIONS

When clients reprocess each emotional circuit with objectivity instead of subjective felt sense, it serves:

- to normalize the emotions,
- to reduce shame about having had emotions in the first place.
- educate about their adaptive function
- enable the images to spontaneously shift to a resolution, indicating the circuit is now reset.

6. IMAGINATION POTENTIATES THE BRAIN

IMPLICATIONS

- The people who have the most trouble with “sliding in” to subjectivity instead of maintaining an observing stance are precisely the ones who will benefit the most from acquiring the ability to observe the emotion.
- They had a grim first year of life, alone, scared
- This suggests that intersubjectivity may be repaired in this step, in part.

SUMMARY OF TIPS & IMPLICATIONS

1. Affect is hardwired, subcortical & requires no learning: *therefore it is reasonable to attempt to process those circuits directly as in the resetting procedure*

2. Babies learn prenatally, *therefore it is reasonable to attempt to reprocess and repair for prenatal learning and experience*

SUMMARY OF TIPS & IMPLICATIONS

3. Basal ganglia learning defines relationship templates, *therefore, it is reasonable to utilize special procedures to deeply access those deep structures*

4. Ventral vagal activation enables change, *therefore, it is reasonable to use any method that will strengthen and resource clients to enable therapeutic change*

SUMMARY OF TIPS & IMPLICATIONS

5. The right hemisphere holds somatic, implicit, relational and emotional experience, *therefore, it is reasonable to use methods beyond talk therapy that bypass the left hemisphere, including EMDR, somatic therapy, ego state therapy, and that hear the narrative in the enactment material*

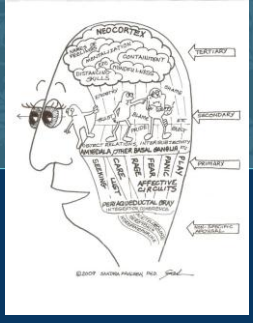
6. Imagination potentiates change in the brain, *therefore it is reasonable to utilize imaginal interweaves to provide a felt sense of getting developmental needs met*

BOILED DOWN....AND RE-SEQUENCED

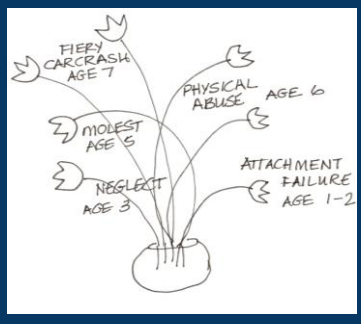
1. Richly activate ventral vagally for enhanced processing capacity,
2. Deeply access object relations in the basal ganglia using ego state work with parental introjects,
3. Process affective circuits directly with ET-3,
4. Access the right hemisphere with EMDR, somatic and ego state maneuvers, and by hearing the baby's story in the non-verbal enactment material,
5. Reprocess & repair prenatal experience with ET-4,
6. Utilize imaginal interweaves to provide a felt sense of meeting developmental milestones.

EXTRA TIP!! IF TIME PERMITS...

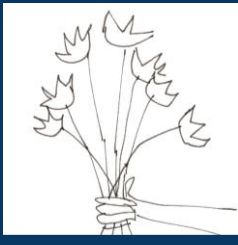
- We need to take brain's bottom-up development into account in treatment
- Temporal Integration Paulsen (2009, and in press)



IN COMPLEX TRAUMA...

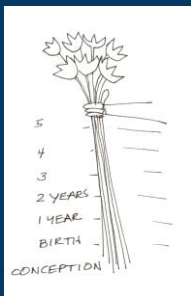


START BEFORE THE UNINTEGRATED EXPERIENCE OCCURS



Something interesting happens.....

TEMPORAL INTEGRATIONISM



EXTRA TIP!! IF TIME PERMITS...

- We need to take brain's bottom-up development into account in treatment
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QUESTIONS?

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