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Frontiers in the Psychotherapy of Trauma & Dissociation

*The Official Clinical Journal of
the International Society for the
Study of Trauma and Dissociation*

**Neuroaffective Embodied
Self Therapy (NEST): An
Integrative Approach to
Case Formulation and
EMDR Treatment Planning
for Complex Cases**
Sandra L. Paulsen, Ph.D.



International Society for the
Study of Trauma and Dissociation

TRAUMA AND DISSOCIATION. IT HEALS HERE.

Frontiers in the Psychotherapy of Trauma & Dissociation

The Official Clinical Journal of the ISSTD

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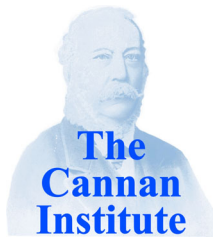
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ARTICLE

Neuroaffective Embodied Self Therapy (NEST): An Integrative Approach to Case Formulation and EMDR Treatment Planning for Complex Cases

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In the three decades of Eye Movement Desensitization and Reprocessing's (EMDR) history, there has been an unfolding of awareness that the standard protocol of EMDR therapy must be modified for safe and effective use with complex trauma and dissociation. There have been a number of modifications suggested to accomplish that end, involving the integration of several therapeutic approaches. The challenge for clinicians is how, and by what decision process these other methods might be integrated with fidelity to adaptive information processing (AIP) theory and therapy. The NEST approach guides the process of assessment, case formulation, and treatment planning for time-efficient treatment. The acronym stands for Neuroaffective Embodied Self-system Therapy. "N" for Neuroaffective refers to leading edge applications from neuroscience, "E" for Embodiment using somatic therapeutic maneuvers, "S" for Self-System enlistment and de-conflictualizing through ego state interventions, and "T" for Therapies integrated within the eight phases of EMDR and AIP. Although not a cookie cutter because of the unique nature of each complex case, NEST goes a considerable distance to systematizing the process of case formulation and treatment.

KEYWORDS *neuroaffective, somatic, ego state, dissociation; EMDR; adaptive information processing, fractionation; affective circuits, structural dissociation*

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In 1987, Francine Shapiro discovered the transformative brain-based effects of eye movements in a serendipitous walk in the park. Four years later, the author was trained in the use of Eye Movement Desensitization and Reprocessing (EMDR) to treat trauma and trauma-related conditions. By 1992, Paulsen was describing modifications needed to use EMDR in dissociative cases using ego state methods (Paulsen, 1995), and these modifications and cautions became incorporated into EMDR trainings (Fine et al., 2001). Over the next decades, additional clarity unfolded regarding natural sequencing of decision processes, stabilization and preparation methods, and other means to facilitate the application of EMDR with dissociative and other complex cases (Lanius, Paulsen, & Corrigan, 2014; Paulsen, 2009a, 2017).

In tandem with EMDR therapy itself, Shapiro formulated Adaptive Information Processing (AIP) theory to explain that unprocessed traumatic experience is held apart in disparate neural networks until it is accessed and the brain's information processing system catalyzed to process the experience to an adaptive resolution (Shapiro, 1995, 2018). This formulation encompasses and explains the effects of not only EMDR therapy, but also somatic therapy (Lanius & Paulsen, 2014; Paulsen & Lanius, 2009), ego state therapy, and dissociation (Paulsen, 1995; Ross, 2012) and more. AIP theory, therefore, subsumes all of the elements of NEST

NEST is an effort to systematize case formulation and preparation for trauma processing within AIP Theory. It is based on affective neuroscience (Panksepp, 1998; Panksepp & Davis, 2018) and other leading edge neurobiological understandings (e.g., Schore, 2009 and Siegel, 1999), neurodevelopmental principles, and yet also relies heavily on traditional psychodynamic principles, especially for understanding the unfolding of reenactments in the relationship field as those reenactments tell the untold unconscious story. This article is a first description of that integrated approach.

THE EIGHT PHASES OF EMDR THERAPY

EMDR therapy is a comprehensive treatment approach with eight phases. They are as follows:

Phase I – History: In simple cases, involves understanding the history of the presenting problem, and in complex cases, involves not only a full life history but also assessment for degree of dissociation, negative and positive affect and soma tolerance, attachment status, and more.

Phase II – Preparation: Involves, in simple cases, an informed consent process, and the learning of “safe place,” to evoke the felt-sense of safety. In complex cases, preparation likely includes ego state and somatic methods, as will be described.

Phase III – Assessment: This refers to establishing the target memory for EMDR processing of a given issue or traumatic experience, to include:

a mental image that represents the most disturbing aspect of the memory being targeted, a Negative Cognition that represents what the client believes about him or herself now when they think about what happened then, and a desired Positive Cognition that they wish they believed about themselves when they bring to mind what happened in the target memory. That desired Positive Cognition is then rated according to how true it feels in the gut, not in the head, on a scale from 1 to 7 where 1 = completely false and 7 = completely true. The therapist then “lights up the neural network” by asking the client to bring to mind the image and the Negative Cognition, and then asks what the emotion is, how disturbing it is from 0 to 10 where 0 is completely neutral and 10 is the most intense disturbance the client can imagine, and where it is felt in the body. With the neural net activated or “lit up,” desensitization is ready to begin.

Phase IV – Desensitization: With the neural network activated in Phase III – Assessment, the therapist adds bilateral alternating stimulation (BLAS), formerly called BLS. It is proposed that BLAS is a better term because the stimulation must be both bilateral and alternating (not bilateral and simultaneous) (Serin, Paulsen & Kade, in press). There are three types of BLAS, namely: BLASÉ, BLAST, and BLASA. BLASÉ is bilateral alternating stimulation based on eye movements where the client’s eyes move laterally while watching either the therapist’s fingers or a device with a moving light. BLAST is bilateral alternating stimulation based on alternating tactile stimuli where the client passively receives either tapping on the knees or hands or a buzzing from tactile pulsars held one in each hand or otherwise stimulating the two sides of the body in an alternating manner. BLASA refers to auditory bilateral alternating stimulation which are typically administered through earphones in the form of tones, although research suggests that auditory is less effective than tactile and eye movements. Desensitization typically proceeds in sets of roughly two dozen saccades, plus or minus, depending on observed signs of sympathetic arousal and resolution, or other signs of release, etc., for the entirety of the session. With long ago trauma in explicit memory, processing often continues uninterrupted moving spontaneously to an adaptive resolution, unless it gets stuck or “loops,” in which case cognitive, somatic, or other interweaves are employed sparsely to get processing back on track. However, with trauma and neglect that is complex or in implicit memory, processing can be quite nuanced, and fractionated, which has been described at length elsewhere. In the Early Trauma work, the story emerges in the relationship field, in the subtle felt-sense of the client’s body and the therapist’s discernment of that felt-sense in his/her mirror neurons. Interweaves may be of many varieties including ego state, somatic, experiential, imaginal, educational, or other types.

Phase V – Installation: Here, once disturbance has resolved to a SUD of 0 or 1, the therapist checks to ensure the original desired Positive Cognition still fits, and installs it with BLAS, and pairs it with the original

image. Additionally, the therapist takes the client's Positive Cognition into the future in a similar situation to ensure maximal generalization of the shifts and new learning. The Positive Cognition is expected to be a VoC of 6 or 7 if processing is complete. When working in implicit memory for the first years of life, Positive Cognitions will have emerged in the processing and noted by the therapist for installation for that time period before going on to the next developmental time period, which is often but not always about three months in length.

Phase VI – Body Scan: At the end of apparently complete processing, the therapist asks the client to scan their body to see if there is subtle residual disturbance, which would indicate that processing is incomplete after all. However, residual disturbance may signal the near emergence of the next memory in a chain of associations, in which case processing does not continue if the end of session is near.

Phase VII – Closure: At the end of a session where processing is complete, there is a debriefing of what to expect following the session, including continued processing, vivid dreams perhaps, etc., a recording of notes in a log, and a plan for what to do in the event of trouble. At the end of a session where processing is incomplete, that is, the SUD is not 0 or 1 and the VoC is not 6 or 7, there should be a closure procedure, such as a streaming white line, a grounding procedure, or an ego state maneuver that “tucks in” child parts and contains incomplete processing (Paulsen, 2009a, 2017).

Phase VIII – Reevaluation: At the subsequent session, the first order of business is to inquire into the status of the prior EMDR processing by bringing up the target memory and assessing to see how much disturbance there is on the SUD scale and how true the Positive Cognition is on the VoC scale, as it might suggest continued processing is needed, or the next piece will have emerged during the week.

The above is a brief summary of EMDR phases, but it is abbreviated here, and extensive additional information is available (Shapiro, 1995, 2018); for dissociative (Paulsen, 2009a, 2009b, 2017) and for preverbal and attachment injured clients (O'Shea, 2009a; Paulsen, 2017).

HOW THE EARLY PHASES OF EMDR THERAPY ARE MODIFIED FOR COMPLEX CASES

Often, the complexity of a case unfolds over time, in the course of building rapport, and navigating therapeutic mysteries, challenges, or ruptures. Simple cases permit early use of EMDR therapy Phases III–VII for processing trauma or, indeed, any life experience that had a maladaptive learning outcome. However, early EMDR reprocessing, and especially Phase IV desensitization, will encounter blocked processing for complex cases because either the therapist did not identify the complexity in advance of utilizing EMDR,

or perhaps because the therapist is untrained or otherwise unprepared to treat complex cases, even to the extent of disbelieving in the existence of structural dissociation. The ubiquity of dissociation and the misperceptions held by poorly trained EMDR therapists has been described elsewhere (Paulsen & Lanius, 2014).

Because of the hazard of failing to identify hidden complex trauma/structural dissociation, Paulsen has been advocating since 1992 that EMDR therapists *always* assess early in treatment the presence or absence of structural dissociation (Steele, van der Hart, & Nijenhuis, 2005), rather than deferring that assessment past the rapport and stabilization phase leading up to the Desensitization Phase of EMDR therapy, or, more typically, omitting formal assessment altogether (Paulsen & Lanius, 2014). However, a more thorough assessment is needed to formulate the case and plan the treatment with an eye to time-efficient case preparation prior to engaging in trauma work per se. At the same time, it is ill advised to spend more time in preparation than is actually needed before trauma processing. The remainder of this article tells that story and how the results of an expanded assessment point to specific interventions and treatment strategies expressed in the remaining phases of EMDR therapy.

EXPANDED PHASE I—HISTORY FOR COMPLEX CASES

History does not refer merely to personal and family history, educational, medical, psychotherapeutic, alcohol and drug, educational, work, and social history. Additional categories needed for efficient trauma case formulation include (a) structural dissociation and degree of internal conflict or cooperation, including loyalty to the aggressor, (b) somatic dissociation, (c) affect regulation, (d) attachment history, and (e) external and internal resources, and more.

STRUCTURAL DISSOCIATION

With trauma processing in mind, the therapist needs to identify the presence or absence of a formal dissociative disorder. A brief explanation of structural dissociation is necessary here, as offered by its originators (Steele et al., 2005). As a result of traumatic experience, unprocessed trauma can be sequestered in emotional parts (EPs) of the personality that are structurally separate from the parts of the personality that persist with apparently normal daily functioning (ANPs). In primary structural dissociation, there is one EP and one ANP. In secondary structural dissociation there is more than one EP, based on biologically based innate defensive/emotional reactions, and one ANP. In tertiary structural dissociation, there is more than one structurally separate ANP and more than one EP. This latter outcome

is historically referred to as multiple personality or dissociative identity disorder.

Because the part that presents for therapy is typically an ANP, and the sequestered unprocessed traumatic experience is held in one or more EPs, there is, in the parlance of AIP Theory, insufficient linkages between those neural networks that represent the ANPs and EPs. That absence of linkages is maintained by the need to keep the poles of a double bind separate, or to keep unbearable experience out of awareness of the ANPs charged with managing daily life. In less dissociative clients, doing standard EMDR will pull in and associate formerly dissociated experience, processing it to an adaptive resolution. The more structurally dissociative a client is, the more the system is invested in maintaining the sequestering of traumatic experience. When EMDR does not successfully resolve an issue, it is typically because the risks of change are perceived by some parts of the client as being greater than the benefits of maintaining the status quo with its dissociative sequestering of traumatic information.

The author has long advocated that those unfamiliar with dissociative disorders assess using the Multidimensional Inventory of Dissociation (MID) (Dell, 2006), or with the long-standing SCID-D (Steinberg, 1994). The latter requires training and depth of understanding because it is an interview format that the former does not require, being a multiple choice and self-scoring device available for free online. The DES-II, being a screening instrument and not a diagnostic instrument, and being associated with false negatives, is handy but not definitive. The author relies heavily on an initial and structured psychiatric-style interview that embeds questions associated with dissociation such as inquiries about headaches, flashbacks, undiagnosed somatic symptoms, depersonalization and derealization, memory challenges, and more, because an absence of those red flags indicates that EMDR Desensitization is on the near horizon, if indicated at all, whereas the presence of those red flags indicates that other steps are likely needed and that EMDR Desensitization, if indicated, is on the farther horizon.

Whether or not the patient meets criteria for DID or has frank time loss and observable switching is not the most important question facing a therapist intending to use EMDR for trauma processing. Rather, the foremost question is whether any EMDR Phase IV Desensitization will be derailed because of internal conflict between parts or, typically, loyalty to the aggressor. This can be determined early in treatment with the addition of ego state therapy for probative purposes, to identify parts opposed to the treatment, or deductively identify whether any risky symptoms such as self-harm or other reactive behaviors are encysted in specific ego states or alters. Though it is not always possible to so ascertain early, it is often quite doable for those with the requisite skills to probe safely. Those with no history of reactivity are safer to proceed with Desensitization than those with a history of self-harm, suicide attempts, hospitalization, anorexia, etc.

POSITIVE AND NEGATIVE SOMA AND AFFECT TOLERANCE

Early in treatment, the therapist can ascertain whether there is somatic dissociation present even in the absence of structural dissociation. In interview, the therapist can ask, "What's happening in your body as we discuss this?" about either disturbing historical events or positive activities. A client can have either positive or negative soma tolerance or both, and both must be assessed because both are needed for successful EMDR conclusion. Traumatic material cannot be processed without the capacity to tolerate and endure physical discomfort associated with traumatic memories, although that needs to be within the context of "dual attention awareness," meaning one foot in the memory and one foot in the office. Similarly, the processing cannot move to an adaptive resolution if the client cannot tolerate positive somatic and affective experience. Usually the presence of intolerance of positive soma and/or affect is associated with interference from loyalty to the aggressor, which is why introject work is key and will be discussed subsequently. In sum, to endure the lows and arrive at the highs of trauma processing requires that four conditions be tolerated (e.g., positive and negative affect and soma tolerance). Deficits in any of these areas will require additional preparation prior to trauma processing in EMDR therapy Phase IV Desensitization.

ATTACHMENT HISTORY

Whether a client is structurally dissociative or not, the therapist should ascertain whether early attachment and other developmental milestones were met. In some individuals, this can be ascertained by a query such as, "Although none of us really remembers, if you had to guess based on how it feels at the core of you, does it seem as if your early emotional and other needs were met in the first few years of life, or not so much?" Many individuals will pause, glance to one side, and say quietly, "not so much." Other insight-free clients may require the therapist to deduce based entirely on relationship history because those with tumultuous intimate, marital, and other relationship history may have experienced very Early Trauma or attachment injury with unmet early milestones. The diagnoses to rule out, however, include autism spectrum disorders or other neurodevelopmental conditions not directly or clearly related to relationship learning, though clients on the autism spectrum surely often have trauma histories that emerge out of their bewildering experiences on the spectrum. The results of this assessment will point to treatment planning as to the standard protocol of EMDR or the Early Trauma approach of EMDR (Paulsen, 2017; O'Shea, 2009a, 2009b).

INTERNAL AND EXTERNAL RESOURCES

Early in treatment, the therapist can discern by the patient's life trajectory and direct inquiry whether the person is highly resourced internally or not. Someone who achieved two masters and a Ph.D. and runs a consulting business is not without internal resources and likely has external resources as well. However, someone who has never worked outside the home and is living on psychiatric disability income may have never known efficacy, being far more familiar with terror, shame or despair. Siegel's "window of tolerance" is a good way to envision the person's capacities. If they are fragile and easily overwhelmed or undone by emotional provocation as occurs in the necessary painful work of therapy, progress will be slow, especially if they are also behaviorally reactive. If, however, they are nonreactive and resilient, with good insight, the risk is lower and the window of tolerance is larger. Someone who can pay for good treatment at the optimal level is in far better shape than one who can pay for, say, 10 sessions of insurance-company driven treatment that addresses only cognition and behavior but not the underlying emotional injuries from trauma that are highly treatable with the right treatment and dosage.

EXPANDED PHASE II—PREPARATION

Because preparation might be both expanded and complex, depending upon the outcome of history, and this is part of the reason that NEST conceptualization is helpful, discussion of expanded preparation will be deferred to the detailed discussion of NEST

EXPANDED PHASE III—ASSESSMENT FOR COMPLEX CASES

In complex cases, Assessment is quite different from that explained earlier in the article, depending upon whether the client is structurally dissociative, or attachment injured, or both.

If the client is very structurally dissociative, a whole traumatic memory is likely to be too large a target, or contiguous with numerous traumas thematically related, and internal conflicts are likely to derail trauma processing. Therefore, though Phase II work already addresses some of those internal conflicts between parts, Phase III target selection will need to reflect fractionation and other planning (Kluft, 2013), for later use in Phase IV Desensitization. The fractionation of traumatic memories in EMDR therapy for structurally dissociative clients has been addressed elsewhere (Paulsen, 2009a). It includes negotiating with parts of the system for what memory and fraction of memory, or information channel or alters will be targeted first.

If the client is not highly structurally dissociative, but rather is attachment injured (which can reflect primary dissociation), then the injurious traumatic experience was sustained in the preverbal, implicit memory period in the first years of life. It can be conceptualized as primary dissociation because the child's innate emotional circuits with concomitant somatic experience were necessarily cut off or jettisoned in favor of an apparently normal child that aligned itself with the parent's requirements. When the unprocessed traumatic experience is held in implicit memory because it was preverbal or very early, there can be no easy identification of a target image nor Negative or Positive cognitions. Instead, the time frame itself is targeted. This has been described elsewhere (Paulsen, 2017).

PHASE IV—DESENSITIZATION

In complex cases, one only processes a fraction at a time, often held by one or two ego states/alters, so the subsequent session may be an occasion for other states/alters to process their piece of the same memory. However, if processing is arduous or highly abreactive, it may not be wise to continue processing until prior processing results have been synthesized. If the client is destabilized by the work, stability should be regained before processing continues.

EXPANDED OTHER PHASES

In complex cases that are structurally dissociative, ego state maneuvers are needed at each step to ensure parts continue to be on board, loyalty to the aggressor is managed, and internal conflicts mediated. Hypnosis may be integral to the EMDR therapy for complex cases because of the artistry involved in accelerating or decelerating access to the traumatic disturbance, the need to fractionate, imaginably repair, or otherwise attenuate or titrate the work and resource the client on an ongoing basis.

The first four phases, as described above, are the most critical to case formulation and treatment for complex cases, so those are the phases most affected by NEST conceptualization. However, the remaining phases may also be effected, for example: In Phase V—Installation, with structurally dissociative clients, when processing only a fraction at a time, one may not get far enough (SUD down to 0 or 1) to do an installation of the desired positive cognition; therefore, instead one may need to use a meta-cognition that summarizes the partial progress optimistically with an eye to future processing. In Early Trauma work, the PCs are captured as they emerge during processing of implicit memory and are installed at the end of repairing a time period, before moving on to the next time period.

EXAMPLES OF CASE FORMULATION

As a result of assessing the above categories early in treatment for a client with a trauma history, the EMDR therapist may formulate the case as in the following several examples (an incomplete list no doubt):

- a. Client A: This woman presented for treatment for PTSD from a car accident that occurred eight months prior. She also evidenced social anxiety and a tendency to avoid some of the things she wanted for herself, such as public speaking. Client A is highly resourced in that she has done prior therapeutic work, has good insight, is motivated for treatment, has saved to pay for the therapy and has a good support system. A long-term meditator, she is non-reactive and resilient, not-structurally dissociative, with good positive and negative soma and affect tolerance. Client A being a therapist herself, she understands that if she is triggered, this points to a maladaptively stored unprocessed disturbing memory, often from her family of origin, and this presents an opportunity to target that unresolved traumatic experience for processing.
- b. Client B is moderately resourced internally, is somewhat reactive, highly sensitive, and moderately resilient. He has some internally conflicted ego states with prominent loyalty to the aggressor (his narcissistic mother), is well tolerant of positive affect and soma but fearful and avoidant of negative affect and soma, seemingly related to early inadequate attachment history when he had to subordinate his needs and feelings to those of his mother. His mother would turn her back when he cried or fussed, so he learned to keep her attention by not crying and fussing. Therefore, treatment might proceed to the Early Trauma approach with its customary preparation steps to increase ability to tolerate affect without dysregulation.
- c. Client C is structurally dissociative with high reactivity, low resilience and high sensitivity to slight and overwhelm. She has amnesia for recent self-harm which appears to be related to disoriented introjects of perpetrators punishing her for seeking help or daring to believe she can pursue health or happiness. Although her father is elderly and infirm, aspects of the client insist that he is still hurting her nightly. When the therapist asked to speak to the father part of the self, that part of the client believed itself to be the external father, and so was loyal to the perpetrator's requirement of keeping secrets. When the therapist inquired regarding somatic sensation, by asking what she noticed in her body, she replied, "We don't have one of those." Affect is severely dysregulated with her only apparent affect regulation capacity being state switching by alters. A long period of preparation and stabilization is anticipated before trauma work can begin.

In all three of the above examples, the NEST approach guides next steps including preparation that will lead up to trauma processing. The next part of this article will describe how the findings which ensue from the above domains of early assessment point to specific treatment plans within the NEST framework. First, an explication of NEST

NEST POINTS TO TREATMENT PLANNING

This section will expand the discussion of NEST to illuminate how it points to specific therapeutic approaches and specific interventions depending on the outcome of the first phases of EMDR therapy.

“N” IS FOR NEUROAFFECTIVE

Jaak Panksepp, the late father of affective neuroscience, formulated a tripartite model of affective neuroscience (1998). In the Pankseppian understanding, Primary Affective Processing is subcortical, present from birth and requires no learning. Panksepp experimentally demonstrated that mammals have the following subcortical affective circuits, which he capitalizes to connote that these are hardwired and innate: SEEKing (the “mother of all circuits,” he said, RAGE, FEAR, LUST, CARE, PANIC (infant separation panic, the substrate for depression), and PLAY. Paulsen refers to these as operating “under the floor boards,” as dashboard indicators providing necessary information for moment-to-moment decision making and, once prioritized, lead to survival strategy. The Secondary Affective Processing level is what Jaak Panksepp called object relations learning and Alan Schore calls relationship templates, all learned in the attachment period in the first years of life. The Tertiary Affective Processing level is all other neocortical learning related to emotions/affect. He also asserts that of all the hundreds of neurotransmitters, the ones most implicated in day-to-day emotional processing are: acetylcholine, norepinephrine, and serotonin. Trauma processing involves other chemistry and systems, notably, the opioid system and cortisol.

The Pankseppian understanding leads to specific expectations regarding trauma in the attachment period, and treatment implications as well. First, the Pankseppian circuits, being hardwired, are innately without a downregulation system at birth. That is, babies go from a calm or neutral state to extreme emotion in a heartbeat, and require others to soothe and calm them, by which they come to acquire internal affect regulation capacities through learning in the Secondary Affective Processing level. If this goes wrong for any reason, a baby may only have available dissociative state switching at the circuit breaker, which has been variously described as occurring at the superior colliculus, and/or the rostral medial tegmental

nucleus (F. Corrigan, personal communication, March 25, 2018). Similarly, if the body isn't a safe place to live for any reason in the first year of life, either because not enough nurturing is available or because of illness or pain, baby may learn somatic dissociation or alexithymia (Paulsen, O'Shea & Lanius, 2014).

In the case of dissociative state switching between affective circuits, subsequent learning accumulates in a vertical columnar fashion atop these circuits, without the benefit of horizontal associative learning as the child learns smooth state switching between affective circuits. Dissociation has been construed as a state-switching disorder (Putnam, 1988; Lanius et al., 2014). Because these injuries and affect regulation deficits occur so early in life, they are held typically in implicit memory without pictures or narrative. There is a special EMDR therapy protocol tailored to address trauma in implicit memory, which will address the trauma by targeting time frames and repairing in imagination via the provision of the felt-sense of meeting developmental milestones. This has been extensively described elsewhere (Paulsen, 2017).

There are other implications of affective neuroscience for clinical work. When clients come to treatment, it is necessary to keep them in the optimal midrange of arousal during therapy in general and especially during trauma processing (Siegel, 1999). There are contemporary methods that can be added to a clinical practice to facilitate affect regulation by working directly on the affective circuits or other aspects of the nervous system.

In the Early Trauma approach of EMDR therapy mentioned above (O'Shea, 2009a, 2009b; Paulsen, 2017), one of the preparation steps involves direct processing with bilateral stimulation. In this step, each of the Pankseppian circuits (Panksepp, 1998), plus shame, is targeted for processing with objectivity and without the felt-sense associated with that circuit. It is theorized that this allows the circuit to be "rebooted" without an affective load on the circuit. Panksepp himself has spoken and written openly about his experience having his affective circuits reset by the author, as part of a larger EMDR treatment, and he believed the step works directly on the affective circuits (J. Panksepp, personal communication, June 9, 2009). As a result of this step, many individuals are markedly calmer and henceforth have increased affect regulation ability. For further discussion, see Paulsen 2017.

Other Neuroaffective methods in NEST involve the use of device technologies for regulation and state change. Several examples are the use of cranial electrotherapy stimulation (CES) devices, such as alpha stim (Bystritsky, Kerwin, & Feusner, 2008). Although the wave form is variable across devices, one of them reportedly causes the eighth cranial nerve to produce alpha waves in the brain, associated with a calm, relaxed state. This is helpful in session with clients experiencing fear or dread regarding the work, helping to keep them in the optimal mid-range of arousal. Similarly, BLAST

technology can be used separate from explicit trauma processing to manage arousal level in the office, and some BLAST devices are available to the public for use between sessions. The author has a severely dysregulated DID client whose ongoing affect dysregulation is improved markedly by the addition of an alpha stim that she uses between sessions and wireless handheld BLAST devices that reduce her level of disturbance. For some individuals, tapping utilizing Emotional Freedom Technique (EFT) or Thought Field Therapy (TFT) on meridians can be helpful to reduce arousal and increase a sense of efficacy.

So far, the application of these devices is to decrease hyperarousal. Neurofeedback can be used to lift what is called “suppression.” The word has a different meaning from that customarily assumed in psychodynamic parlance as a volitional defense. In neurofeedback, the term refers to the state of the brain’s own resistance to change that occurs when the nervous system has had quite enough to deal with, whether because of emotional trauma, physical trauma, illness, neglect, neurological insult, or other stressors. Suppression decreases the likelihood and readiness and openness to change in therapy, because the brain is saying, “no thank you,” even though the client may have the conscious intention of changing. The author is familiar with one type of neurofeedback, LENS neurofeedback, which stands for Low Energy Neurofeedback. It would be ideal if all of our brains would be open enough to respond to environmental stimuli in the present moment, rather than being hardened or rigidified by learned expectations of trouble, or the brain itself suppressing a flexible response. LENS can lift that suppression, virtually enabling “turning the soil,” before planting new possibilities psychotherapeutically or otherwise. In sum, where the CES and BLAST technologies reduce hyperarousal, LENS can free the client from the suppressive effects of hypoarousal, enabling access and facilitating and potentiating change. As a caution, highly sensitive, highly reactive or low resilience clients will need a cautious approach to avoid overwhelm or overtreatment.

An additional device for clinicians to consider is the photonic stimulator, which has been used by NASA and sports teams to speed healing and diminish infection (e.g., Whelan, Smits, Buchmann, Whelan, & Turner, 2001). It may also be useful in clinical settings to potentiate stuck somatic or affective processing (U. L. Lanius, personal communication, March 24, 2018). It has been useful with stuck processing (in Phase IV Desensitization) by having the client hold the device over the locus of an unresolving somatic or affective holding briefly, enabling processing to continue, or insights to occur as the somatic holding shifts.

Finally, for those clients for whom there is somatic dissociation without structural dissociation, the addition of low dose naltrexone (LDN) may be helpful to enable access to dissociated somatic sensations and affective nuances (Lanius, 2014). This is especially helpful when processing preverbal

trauma in the attachment period, when there is no explicit memory or narrative, and only the felt-sense. The author has had numerous experiences where clients with initially limited access to their felt-sense have increased access when subsequently processing on LDN. Because LDN is an opioid antagonist, it is theorized that the LDN interferes with endogenous opioids associated with chronic somatic dissociation. However, it should only be used very cautiously with structural dissociation lest the loss of the capacity to dissociate precipitate fight/flight responses.

In sum, for many clients, the clinician's use of these leading edge neuroaffective conceptualizations and strategies can greatly facilitate clinical practice by increasing access to unprocessed material, improving affect regulation, managing arousal, and facilitating the brain's openness to change. These shifts can potentiate and improve EMDR therapy Desensitization or any other method of trauma processing, whether hypnotic or somatic in nature.

“E” IS FOR EMBODIED

As mentioned above, an early assessment may uncover quickly whether the client has positive and negative affect and soma tolerance. EMDR therapy or other trauma processing methods cannot succeed if the client cannot tolerate affect and soma. Somatic therapies enable the client to become embodied enough to tolerate trauma processing which must be experienced somatically or that which has been somatically dissociated cannot become processed, through association, to an adaptive resolution.

Somatic therapies include Somatic Experiencing (Levine, 2010), Sensorimotor Therapy (Ogden, Pain, & Fisher, 2006), Somatic Transformation (Stanley, 2016) and others. They have in common the moment-to-moment mindful awareness or focused tracking of body sensation through time (Gendlin, 1982). Itself a trauma-processing method, EMDR therapists may best construe of the somatic therapies as EMDR therapy Phase II Preparation for Phase IV Desensitization. However, somatic awareness, though it also serves as an important interweave strategy for blocked processing, either in the invitation to attend to the somatic channel when processing is stuck, or to employ somatic micromovements to release thwarted sympathetic arousal during Phase IV processing. See also Paulsen & Lanius (2009) and Lanius & Paulsen (2014).

One important contribution of the somatic therapies is the understanding that unprocessed or dissociated traumatic experience can be metabolized by “nibbling around the edges” of the trauma vortex, in contrast to the practice in EMDR therapy of going for the very heart of the most disturbing aspect of the trauma, in the standard protocol. Called “pendulation” between the trauma and a resourced state, this slow and gentle approach

is also called “oscillation” as a tip of the hat to the key role of rhythmic oscillation in nature and in healing (Ogden, Minton, & Pain, 2006; Stanley, 2016). One turns the client’s attention to the disturbance for a time, noting nuances of body sensation in a moment-to-moment way, then turns the client’s attention to a resource state, where a resource is defined as anything life enhancing. After a time, attention is returned anew to the traumatic disturbance and it will typically have been partially metabolized. Though slower than EMDR therapy, it is gentler, and so makes a good introduction to trauma processing for those with phobic avoidance of mental contents, which includes structurally dissociative individuals. Of concern, however, is that somatic therapists construe dissociation as somatic and do not take into account, typically, ego states or structural dissociation. In the author’s opinion, the latter is extremely important and will be addressed next.

“S” IS FOR SELF-SYSTEM

Here we will discuss those who are structurally dissociative and those who are not, but who are complex due to the extent of the injury in the attachment period.

Structurally dissociative individuals, by definition, have parts of themselves at odds or in conflict with other parts of the self. There may be frank amnesia and disorientation between parts, with some parts believing they have their own body (separate from other parts of the client’s self-system), not realizing that it is the current year and town, that the client is a grown adult (if they are), and that the bad stuff is not happening anymore. There may be, in some parts of the system, no awareness that the perpetrator is dead. Most significantly and very often overlooked, is the key role of loyalty to the aggressor. This concept is understood by many of the lay public as “Stockholm syndrome,” but even experienced therapists try to address the phenomenon on the wrong level, by using a neocortical intervention out of the gate. The locus of the loyalty to the aggressor is the introject(s) of the parent or perpetrator who was the problem(s) for the client. At the moment of trauma, the child’s humanity is ablated by the narcissism of the perpetrator, so the child takes in the perpetrator viewpoint and negates their own. This is a good survival strategy and is to be appreciated. Paulsen has extensively described strategies for working with perpetrator introjects (Paulsen, 2007, 2009a, 2009b, 2017; Paulsen & Golston, 2014; Paulsen & Lanius, 2009). See also Frankel & O’Hearn (1996) on the similarities between internal self-systems under siege due to identification with the aggressor, and similar dynamics extant in the Warsaw ghetto. In ego state therapy (e.g., Paulsen & Watkins, 2005, Watkins & Watkins, 1997), the therapist speaks directly to the introject even if it does not present itself, orients it, appreciates its survival function, resonantly attunes to its burden of suffering, offers to help

it find new ways, and then, in EMDR therapy, invites the introject to “look through the eyes,” of the client’s body it is part of, so that it too can process its fraction of the traumatic memory to an adaptive resolution (Paulsen, 2009a, 2009b, 2017).

For those clients who are not structurally dissociative, the task is similar though there may be no amnesia, derealization, depersonalization, or palpably separate alters or switches. In the first years of life, if the baby did not have the benefit of loving care assisting with downregulation of affect, and helping baby meet developmental milestones of self, then the baby’s dilemma was gravely serious. Even if not physically life threatening, the child’s burgeoning self-development had to be jettisoned, often, in order to get with the caretaker’s requisite terms. If only the parents needs and feelings were to be accommodated, or for any other reason baby’s needs and feelings were unimportant and not on the caretaker’s radar screen, then baby needed to jettison their own point of view and take on the point of view of the caretaker. Therefore, even for non-dissociative clients, the self-system of the client can be mobilized around loyalty to the parent’s point of view, to the exclusion of the child’s own point of view, needs and feelings. Although much of the needed shift of loyalty to the client’s own point of view will come as a result of processing of trauma and other experiences with maladaptive outcomes, it is wise to first take off the virtual emergency brake by orienting parental introjects (or other introjects) to the present circumstances of person, place and time, appreciating the adaptive function and inviting a changed stance to permit openness to change before engaging in trauma processing, for complex cases. Working with these protective defensive parts of self and inviting loyalty to patient’s point of view makes the best use of therapy time and dollar and has been extensively written about elsewhere as described above.

“T” IS FOR THERAPY

The Neuroaffective, Somatic and Ego State aspects of the work do not stand alone but are in the context of the eight phases of EMDR therapy, and other sound psychotherapeutic principles. Complex trauma cases are unavoidably psychodynamic because of the probability that early relationship dynamics are unconscious and reenacted in the current time in relationship field and in symptom constellations, as if the symptoms are shrines to the untold unheard story. These reenactments pervade the client’s present life, the therapeutic relationship, the trauma symptoms and more. When we work in implicit memory, with unconscious dynamics, there is a keen requirement for the therapist to listen with what Theodor Reik called, ‘the third ear’ of intuition, to discern that untold story between the lines. For example, in the Early Trauma approach to EMDR (O’Shea 2009a, 2009b,

Paulsen, 2017), there is no target image or cognition as there is in standard EMDR for traumas in explicit memory. Instead, we target by time frame, processing emerging body sensation, affect, cognition and other narrative, as it unfolds in the processes. Moreover, the presence of stuck processing, or unremitting symptoms, within a time frame suggests that the therapist is not yet hearing (nor is the adult client's neocortical mind hearing) baby's unheard story. The symptoms then are a shrine to that unprocessed story. The therapist needs discernment and third-ear listening to divine hypotheses for what baby's story actually was. If the therapist hears the story truly, then the symptom shrine will remit. This requires the therapist to hold in mind, for the time period being targeted, the developmental milestones typical for that age. For example, Early Trauma EMDR might be targeting age 9-12 months of life, and the client reports feeling mad that the mother seemingly did not come when baby cried, so the EMDR therapy processes that anger but at a point seems stuck, and the therapist discerns through her own mirror neurons that the client is holding heartbreak or sorry in the chest. Asking about this possibility, the client acknowledges that she indeed feels sad and hurt under the anger. The processing then continues and the baby's story unfolds that under the anger is hurt. As is typical in very early work, there is not the spontaneous shift to an adaptive understanding that we often see in EMDR for later explicit memories. Therefore, the therapist inquires what the patient would have needed, back then, to have the event being processed resolve on baby's own terms. The patient then imagines a different outcome, typically with imagery new parents who are attentive, loving, and mature, providing what the child needed. This experience in the felt-sense of getting what one needs on one's own terms provides a new "marinade" in which the client's lifelong and habitual expectancies and learnings are transformed to more adaptive ones. When enough of these transformations are enacted, time frame after time frame, *seriatum*, through the developmental milestones, beginning at the beginning of life, and proceeding through gestation, birth and the attachment period up to where explicit memory comes online, then the symptoms clusters remit often in fullness. This vignette is described here to illustrate that NEST is a comprehensive approach that embraces not only leading-edge technologies and Neuroaffective understandings, not only somatic and ego state interventions, but the full wisdom of psychodynamics as well, to include, where needed, hypnosis.

CASE EXAMPLES REVISITED WITH NEST CONCEPTUALIZATION

Earlier in this article, three case examples were described emerging from the initial history taking. Discussion will next show how NEST guides case formulation and treatment planning.

Client A and NEST

As mentioned, Client A is highly resourced, not reactive, and resilient. With high motivation for treatment and a good understanding of the need to approach disturbing mental contents, she is ready for early EMDR Desensitization with the only preparation required being an informed consent process and establishing “safe place” for self-soothing in the event of an incomplete session or between session disturbance. The therapist used NEST formulation to guide treatment planning as follows: because she was not structurally dissociative, Client A did not need ego state therapy prior to EMDR Phase IV Desensitization. Because she had good ability to access both positive and negative affect and soma, she did not need somatic interventions prior to EMDR Phase IV Desensitization. Because she was well resourced, insightful, motivated and functioning well, she also did not need preparation with any of the Neuroaffective methods described here, except that in her first sessions social anxiety made her quite self-conscious in the presence of the therapist, who offered her a CES device which promptly calmed her, enabling the work to proceed.

NEST formulation then, for this case, guides the therapist to utilize an unmodified EMDR standard protocol, proceeding to process the PTSD from the motor vehicle accident early in treatment using an unmodified standard protocol of EMDR, which was her highest priority for symptom reduction. Once the PTSD was resolved, they then set about to resolve her other symptoms of social anxiety and avoidance of risk which had childhood origins and were available to direct recall. These resolved in an uncomplicated fashion using classic EMDR procedures.

Client B and NEST

Client B is moderately resourced, somewhat affectively dysregulated and reactive, highly sensitive and moderately resilient. It has been established that these and other symptoms, including attachment injuries, occurred in the first years of life when his narcissistic mother disapproved of his crying and fussing, so he learned to subordinate his needs to hers, to keep her happy, in order to maximize his time with a calmer mother than she would be if he would fuss.

NEST formation guides the therapist as follows: Because the symptoms originated early, and without explicit memories of large traumas, the preparation involved an informed consent process in which the therapist described the Early Trauma approach, which is a modification of the standard phased EMDR therapy protocol (O’Shea, 2009a; Paulsen, 2017) enabling targeting of early experience held in implicit memory, and how it contrasts with the unmodified standard approach, which targets memories in explicit memory. This requires explaining to the client some aspects of how the brain neuroaffectively responds to early attachment trauma and

neglect, and how we can resolve and repair those early injuries. Collaboratively, then, the therapist and client decided to use the Early Trauma approach. Preparation steps include establishing a containment strategy, a safe state strategy to evoke a relaxed and calm state, with adjunctive use of a CES device. It also includes resetting the Pankseppian affective brain circuits, plus shame, for the purpose of increasing neuroaffective regulation by adjusting the baseline of affective arousal (Paulsen, 2017).

NEST invites the therapist to consider not only neuroaffective elements but whether ego state and somatic maneuvers are needed, within an overall well-chosen psychotherapeutic strategy. Because Client B was not highly structurally dissociative, and any dissociation was primary structural dissociation related to jettisoning very early emotional and bodily needs, ego state therapy was not required as a preparation to trauma processing. As part of the initial assessment it was observed that the client had a hard time dropping into the felt-sense, and would report feeling nothing. The therapist understood this to be a direct sequelae of having had to truncate his needs and feelings chronically as an infant to meet his mother's demands for a "good baby." Therefore, additional preparation steps were needed, including a trial of an opioid antagonist, naltrexone, in low dose. Low dose naltrexone (LDN) has the effect of blocking the endogenous opioids that are the means by which children cut off painful experience when no help is coming. Once the LDN-enabled Client B to be able to access and feel his emotions and body sensations, it was possible to utilize somatic procedures to help him learn competency at tracking his internal body sensations in a moment-to-moment way, as well as resourcing him and helping him discern the felt-sense of resources in contrast to the felt-sense of disturbance, while resonating and attuning with his subjective experience. Once an initial competency was established at somatic discernment and tracking, it was also discussed whether to add LENS neurofeedback to the treatment plan to further facilitate access to material and to reduce resistance to change. For several sessions, brief and cautiously administered LENS neurofeedback treatment was used prior to EMDR desensitization which seemed to potentiate the processing. With readiness established, the therapist implemented the desensitization process of the Early Trauma approach of EMDR, proceeding to clear and repair trauma by time frame. The therapist directed client attention to time frames beginning from the beginning of life, instructing the client to drop into the felt-sense of the nuances of affect and soma that emerge viscerally for the time period. The therapist directed Client B's attention inward while simultaneously administering bilateral alternating stimulation (BLAS), in this case bilateral alternating stimulation – tactile (BLAST) instead of eye movements (BLASÉ) to enable the client to close his eyes while discerning the subtleties of the felt-sense. In combination with the therapist's knowledge of developmental milestones, intuition and mirror neurons, and information emerging in the relationship field in session,

the subtle processing of the experience associated with each time period result in the therapist and client slowly acquiring an understanding of the client's lived experience in the earliest years of life. With this modification of the EMDR standard protocol, the negative and positive cognitions are not articulated ahead of initiating desensitization since there is no cognitive narrative or picture because the memory is held implicitly and bodily. Instead, those cognitions emerge during the processing and are captured for installation before leaving the time frame. Unlike unmodified EMDR where shifts often spontaneously occur, for Client B, the therapist necessarily evoked the cognitions by inquiring what the client would have needed for his needs to have been met on the client's terms, as they processed each time period of approximately three months. As the work proceeded, the client projected his fear of the therapist's disapproval, and his expectation that he had to take care of the therapist. This was grist for the mill, with the therapist reassuring him and wondering if those fears and expectations were part of "baby's story," which Client B endorsed. When loyalty to his mother's point of view persisted, although Client B was not otherwise structurally dissociative, the therapist spoke directly to the maternal introject, orienting her to present circumstances, including that the outside mother was dead for 12 years, and that inside mother had served well, keeping the client quiet when that was needed to maintain mother's approval in childhood. This intervention resulted in a reduction in loyalty to the aggressor, enabling that part of the experience to be owned and repaired, as part of what the author calls the "catch and release" program of the Early Trauma approach. Notably, loyalty to the aggressor also seemed to be more modifiable once LENS neurofeedback was initiated, as if the protective aspects of self were able to "stand down" and allow therapeutic change. At the beginning of the EMDR Desensitization, when the client's anxiety was highest, the therapist offered a CES device which was relaxing and calming. With each reclaimed piece of the story and each repaired milestone, the client's dawning awareness included that his needs and feelings were normal, and the problems were not his but his mother's, and that he was fine. The repairs involved imagining a good enough mother mirroring, nurturing, accepting and elevating his needs and honoring his feelings and humanity. By the time the Early Trauma processing cleared and repaired traumatic and neglectful experience through age 5, Client B's presenting symptoms were largely remitted.

Client C and NEST

Client C history and early sessions revealed structural dissociation with the client meeting criteria for dissociative identity disorder. She was highly reactive, highly sensitive to slight and prone to dysregulation, and not very resilient. She evidenced amnesia and recent self-harm. NEST pointed to the need for initial ego state interventions to decrease self-harm and enlist

cooperation of the self system. The therapist investigated by asking to speak to whatever part of the self cut the body, and when parts demurred, and the therapist fully expected the problem to be related to a perpetrator introject, the therapist asked to speak to father part of the self. After an initial eruptive display by the father introject, the therapist reassured the father introject that she would not press for secrets and appreciated his protective function. She reassured the father introject that the therapist would not try to get rid of him and could not if she wanted to, but rather would help him get a more up-to-date job appropriate to present circumstances (since outside father is 82 and in a dementia facility, unable to walk or otherwise harm the patient again). The therapist commiserated with the part's great burden, wondered if he, too, carried pain, and indicated it would be her privilege to help him, too, with the other parts of self. This reduced internal conflict and self-harm.

Regarding neuroaffective considerations, because Client C was reactive and nonresilient, use of neurofeedback was deferred lest it be destabilizing, but the therapist did early offer in session use of a CES device for soothing, which remarkably seemed to enable the introject's cooperation. The client, on her own initiative, purchased a device for home use for managing affect and flashbacks between sessions with good results. Naltrexone was not used lest it precipitate a fight/flight response if dissociative barriers dropped precipitously. Once ego state therapy enabled the father introject to stand down, the question remained of whether the client was ready for trauma processing.

NEST also invites consideration of soma tolerance. Early in treatment, the client had denied having a body, and was not able to report or tolerate attention to body sensation, either positive or negative, without triggering flashbacks and shaming from the father introject. This inability to mindfully tolerate soma improved with the use of the device described and with the ego state work already mentioned. Additionally, the therapist embarked on somatic therapy, initially without reference to the body, by evoking resource states that activate the ventral vagal nervous system (Porges, 2008), over time increasing the window of tolerance. Progress was slow leading up to the first application of EMDR Phase IV Desensitization, and initial trauma processing was quite abreactive, with need for significant ego state interweaves to orient parts to present circumstances during EMDR Phase IV trauma processing. Therefore, the patient was encouraged to use the CES device to manage herself between sessions. This meant that instead of only being able to manage herself by switching states, she could downregulate disturbance between session, addressing triggered memories over time during session. Of course, relationship issues in the therapeutic relationship not only revealed her learned expectancies for malignant harm from others, but enabled repair in the form of deepening trust in the therapist's good intentions and nurturance.

NEST also invites deliberation of the best psychotherapeutic approach to use. The Early Trauma approach of EMDR on early implicit memory is gentler than unmodified EMDR which tends to be more abreactive. However, after an initial test it was evident that the client was not able to be mindfully aware of soma and affect enough to do the nuanced work, so the standard protocol of EMDR was utilized to demonstrate its efficacy. Over time, the client came to request trauma processing instead of wanting to avoid it, signaling a decreased phobic avoidance of mental contents and gradual symptom resolution. She was able to return to the Early Trauma approach to reclaim her baby state's tragic stories and point of view, facilitating system cooperation and increased integration of parts. Though treatment is incomplete for this highly complex case, the goal is now to be able to be employed within the year.

These abbreviated case examples illustrate how early assessments regarding structural dissociation (and loyalty to the aggressor), positive and negative affect and soma tolerance, internal and external resources, and attachment injury inform NEST conceptualization and point to specific treatment strategies. This makes it possible to use time more efficiently to the degree a complex client can accommodate it.

SUMMARY

This article has outlined an approach to working with complex cases that early in treatment (a) identifies the parameters needed for case formulation; (b) explores what path is needed to prepare the client most efficiently for trauma processing, variously emphasizing ego state maneuvers, somatic interventions, and neuroaffective strategies. Where appropriate, it introduces an Early Trauma approach for trauma and neglect in the attachment period, depending on the characteristics of the client. NEST does all within the eight-phase model of EMDR therapy, and all consistent with Adaptive Information Processing Theory in which EMDR Desensitization is associative, and disparately held unprocessed traumatic information is dissociative. NEST examines how best to facilitate the removal of obstacles to associative linkages that enable processing trauma to an adaptive resolution.

Each element is complex and has been described elsewhere. There can be no cookie-cutter approach as each case is markedly different; the child did not get a procedures manual and development unfolded uniquely, as a tree grows around a rock. In spite of the idiosyncratic nature of each case, the NEST approach is a large step towards a decision and treatment process that makes efficient use of the therapy time and dollar, by utilizing a case conceptualization model that is early, relatively systematic, and trauma-processing informed.

Finally, in the choice of the acronym, NEST, there is a symbolic tip of the hat to the elements of patient nesting, incubation, rebirth, development, growth, and nurturance. That is, NEST is also about the importance of the therapeutic relationship and the care of the therapist, even as it is technical and based upon therapeutic maneuvers.

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