



DISSOLUTION OF AUTONOMIC CHARGE AS A MECHANISM FOR EMOTIONAL MEMORY RECONSOLIDATION: A CONTRASTING CASE ILLUSTRATION OF THE SOMATIC ATTACHMENT PROTOCOL (SAP)

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ABSTRACT: *This paper presents two contrasting clinical case illustrations examining the proposed mechanisms of the Somatic Attachment Protocol (SAP), an integrative, process-based framework for attachment trauma and chronic autonomic dysregulation. Grounded in polyvagal theory, attachment theory, and contemporary models of emotional memory reconsolidation, SAP proposes that dissolution of autonomic charge, the reduction of residual physiological activation linked to unresolved emotional memory, is the essential condition for reconsolidation to occur. Two adult clients with attachment-based dysregulation, hypervigilance, and insomnia received 17 sessions of SAP. Client A showed a breakthrough trajectory, with clinically significant and sustained reductions in distress across standardised measures concentrated in Sessions 15 to 17. Client B showed modest, plateauing reduction across the full course without comparable somatic-symbolic integration. This differential trajectory is examined through SAP's conceptual hierarchy, in which charge dissolution enables reconsolidation and somatic charge regulation functions as a transferable, learnable skill that extends beyond the therapeutic encounter. Implications for clinical training, therapist attunement, and pacing in somatic work with attachment-dysregulated populations are discussed. Limitations of the two-case design are acknowledged, and the illustrations are positioned as theory-building and hypothesis-generating rather than efficacy-demonstrating. Directions for controlled, process-outcome research on SAP are proposed.*

KEYWORDS: Autonomic charge dissolution, Emotional memory reconsolidation, Somatic Attachment Protocol (SAP), Attachment trauma, Polyvagal theory.



INTRODUCTION

Attachment trauma and its sequelae, including chronic autonomic dysregulation, hypervigilance, emotional reactivity, and disrupted sleep, represent one of the most clinically complex presentations in contemporary psychotherapy. The difficulties are not merely symptomatic but structural: they reflect deeply encoded patterns of expectation, arousal, and relational response that have been consolidated over years of lived experience and that resist modification through conventional cognitive and verbal interventions alone (Bowlby, 1988; Lupien et al., 2009; Schore, 2003; van der Kolk, 2014). For many clients, the emotional memory systems underlying these patterns operate below the level of conscious narrative access, organised instead at the level of the body, the autonomic nervous system, and implicit procedural learning (Ogden et al., 2006; Siegel, 1999). This presents a distinct therapeutic challenge: how to reach and reorganise memory traces that are not primarily verbal, not easily accessible through insight alone, and that have become, over time, the nervous system's default prediction of what relationships and the world require of the body.

Advances in affective neuroscience have clarified both the nature of these difficulties and the conditions under which lasting therapeutic change may be possible. Emotional memories are not fixed after initial consolidation; research has established that upon reactivation, consolidated memories enter a transient labile state during which they may be modified before re-stabilising through a process termed "*reconsolidation*" (Nader et al., 2000; Monfils et al., 2009; Schiller et al., 2010). Critically, reconsolidation appears to require the generation of a prediction error, a mismatch between what the memory predicts and what is actually experienced in the moment of reactivation, as the neurobiological condition for synaptic-level revision (Ecker et al., 2012; LeDoux, 2015). This finding has profound implications for clinical practice: it suggests that lasting change is not primarily a function of insight, exposure duration, or behavioural reinforcement, but of the quality of the neurological update that occurs when an emotional memory is reactivated under the right conditions. Therapies that fail to generate this mismatch experience, however technically proficient, may produce suppression or habituation rather than genuine memory revision (Ecker, 2015).

A central obstacle to reconsolidation in clinical populations is the presence of what the Somatic Attachment Protocol (SAP) framework terms "*autonomic charge*": the residual physiological activation, experienced as bodily tension, pressure, agitation, or energetic intensity, associated with unresolved emotional memory (see Master Definition File, SAP Conceptual Framework v1.0). When autonomic charge is high, nervous system resources are directed toward defensive mobilisation rather than integration; the window of tolerance for processing narrows (Ogden et al., 2006), and the conditions for prediction error and memory reconsolidation cannot be established. The polyvagal framework articulated by Porges (2001, 2011) provides the neurophysiological context for understanding this: it is only within a state of sufficient ventral vagal regulation, what Porges terms the social engagement system, that the nervous system can simultaneously activate an emotional memory and remain open to new information. High charge states, by contrast, recruit sympathetic or dorsal vagal responses that foreclose this openness. It follows that *charge dissolution*, the reduction of autonomic activation through sustained, non-interpretive somatic observation, that allows the emotional memory trace to destabilise, is not merely a preparatory step in therapy but the essential condition for reconsolidation to occur.



The relational context in which autonomic charge is encountered further shapes the therapeutic possibilities. Attachment theory, originating in the work of Bowlby (1969, 1988) and elaborated through the developmental research of Ainsworth and colleagues (1978) and the neurobiological investigations of Schore (1994, 2003) and Siegel (1999), establishes that the dysregulation patterns clinicians encounter in adult populations are largely the product of early relational experiences in which the co-regulatory environment was insufficient, unpredictable, or threatening. Main and Hesse (1990) demonstrated that parental unresolved trauma produces specific patterns of disorganised infant attachment, encoding a fundamental paradox in the attachment system: the figure who should provide safety simultaneously activates fear. The neural circuits consolidated through these early experiences, circuits linking relational cues to autonomic mobilisation, do not require conscious retrieval to exert influence; they operate as implicit predictive models that shape arousal, perception, and relational behaviour across the lifespan (Mikulincer & Shaver, 2016; Siegel, 1999). Consequently, any therapeutic approach targeting attachment-based dysregulation must work not only with cognitive representations of early experience but with the somatic and autonomic substrates in which those representations are encoded.

Established trauma therapies have made significant advances in addressing these substrates. Eye Movement Desensitization and Reprocessing (EMDR; Shapiro, 2018) has demonstrated efficacy for post-traumatic stress disorder (PTSD) across numerous controlled trials and employs bilateral stimulation as a mechanism for taxing working memory during traumatic recall, thereby reducing memory vividness and emotional intensity (van den Hout et al., 2011; van den Hout & Engelhard, 2012). Somatic Experiencing (Levine & Frederick, 1997) introduced the importance of titrated activation and pendulation between activation and settling as a means of discharging incomplete defensive responses held in the body. Sensorimotor Psychotherapy (Ogden et al., 2006) extended these principles within an explicit attachment framework. Yet each of these approaches faces characteristic limitations with a specific subpopulation: clients for whom high-arousal exposure, even when titrated, elicits overwhelming affect, rapid dissociation, or dorsal vagal collapse. For these individuals, exposure-based methods may retraumatise rather than process; what is required is an intervention architecture that prioritises regulation before, during, and throughout activation and that is explicitly designed to create the conditions for memory reconsolidation through charge dissolution rather than through exposure volume.

Taken together, this literature converges on a common theoretical throughline: trauma-related dysregulation is encoded, and must be revised, at a somatic and autonomic level, and interventions that engage this level, whether through bilateral stimulation, titrated activation, or attachment-informed co-regulation, share more with one another than their distinct techniques suggest (Cozolino, 2010; Ecker et al., 2023). What remains underdeveloped is an integrative account of why some clients achieve reconsolidation-level change within these approaches while others show only partial or plateauing gains, and a published, case-based literature that documents this differential directly. Existing case-based traditions have demonstrated the value of small-n designs for illuminating mechanism (Fishman, 2005; McLeod, 2010), but none has yet applied this approach to a regulation-first, reconsolidation-targeted protocol that explicitly integrates polyvagal-informed co-regulation with attachment theory and neural interruption techniques, nor examined why such a protocol succeeds for some clients and not others. This theoretical and empirical gap is the point of departure for the present paper.



It is within this clinical and theoretical context that the Somatic Attachment Protocol (SAP) was developed. SAP is a process-based integrative framework whose conceptual hierarchy positions *charge dissolution* as the primary change condition, situated explicitly above the techniques that serve it. The protocol operates across two complementary modes: a *therapeutic mode* in which the practitioner provides relational co-regulation alongside guided somatic observation and neural interruption procedures, facilitating charge activation and dissolution in relation to high-charge attachment memories; and a *self-practice mode* through which clients acquire the transferable skill of somatic charge regulation, enabling the independent application of somatic observation to lower-charge daily-life experiences and extending reconsolidation processes beyond the clinical encounter. By framing somatic charge regulation as an instructive, learnable model, SAP shifts the therapeutic trajectory from a state of clinical dependence to autonomous self-efficacy. Consequently, the framework functions not merely as an in-session remedial intervention but as a structured developmental transition from clinical co-regulation to independent somatic self-practice. This articulation of somatic charge regulation as a learnable, generalisable skill is a distinctive theoretical contribution of the SAP framework: unlike therapies whose benefits are contingent on continued clinical contact; SAP explicitly aims to equip clients with the neurological and attentional capacities to continue reorganising their own emotional memory systems in the course of everyday life.

SAP integrates four primary clinical components within its regulation-first architecture. Neural interruption draws on BrainSwitch 2.0® (Lee, 2025a, 2025b), a neuro-integrative protocol that builds on the original BrainSwitch framework (Curtiss, 2007) and on the developer's earlier peer-reviewed work integrating hypnosis-informed neuroscience with multisensory neural modulation (Lee, 2021). The technique employs attentional redirection and sensory cues to disrupt entrenched perceptual-emotional prediction loops, generating the prediction error that facilitates memory reconsolidation (Ecker et al., 2012; Nader et al., 2000). The clinical efficacy of BrainSwitch 2.0® has been evaluated across six single case studies with neurological (Clinical Q) and psychological (DASS-21; the International Trauma Questionnaire [ITQ]; the Patient Health Questionnaire-9 [PHQ-9]; and the Generalized Anxiety Disorder 7-item scale [GAD-7]) measures, demonstrating consistent pre-to-post improvements in trauma, depression, anxiety, and emotion-based presentations (Lee, 2025a). Multichannel Eye Movement Integration (MEMI; Deninger, 2021) extends classical eye movement integration techniques through a multisensory, limbically targeted protocol informed by the working-memory taxation literature (van den Hout et al., 2011), employing four distinct eye movement pattern sets to deactivate fear memory encoding in the amygdala. Somatic observation constitutes the third primary component: the practice of sustained, neutral awareness of bodily sensations associated with emotional activation, without interpretive overlay or evaluative judgment, held as the mechanism through which autonomic charge is dissolved rather than amplified (Levine & Frederick, 1997; Ogden et al., 2006). Relational co-regulation, grounded in polyvagal theory (Porges, 2011) and interpersonal neurobiology (Schoore, 2003; Siegel, 1999), provides the fourth component: the stabilising influence of a regulated therapeutic presence that widens the client's window of tolerance during activation, making somatic observation and charge dissolution possible in relation to material that could not be safely approached alone.

The present paper offers two contrasting clinical case illustrations designed to examine the proposed mechanisms of SAP in practice. Case A presents an adult client with longstanding attachment-based dysregulation, hypervigilance, emotional reactivity in relationships, and



insomnia, who over 17 sessions demonstrated a characteristic reconsolidation trajectory: gradual stabilisation and processing across sessions 1 through 14, followed by a non-linear breakthrough in sessions 15 through 17 consistent with the phase-transition nature of emotional memory reconsolidation. Case B presents a second adult client with a broadly comparable presentation who received the same protocol over 17 sessions but did not demonstrate the somatic-symbolic integration and spontaneous charge completion events observed in Case A, showing instead modest, plateauing symptom reduction. Symptom data were collected using the Depression Anxiety Stress Scales–21 (DASS-21), the Subjective Units of Distress Scale (SUDS), and the Impact of Event Scale–Revised (IES-R) across all sessions. The differential trajectory is examined through the lens of the SAP conceptual hierarchy, with particular attention to the role of somatic skill acquisition and therapist attunement in determining whether the conditions for charge dissolution and reconsolidation are established.

These illustrations are positioned explicitly as theory-building and hypothesis-generating rather than as efficacy claims. With $n = 2$, no inferential statistical analysis is possible, and no generalisation to broader populations is warranted. The contrasting cases are offered, in the tradition of case-based clinical research (Fishman, 2005; McLeod, 2010), as a means of illuminating mechanisms that are difficult to observe in group-design research and of generating testable hypotheses for future controlled and process-outcome investigations. The paper proceeds with a description of the Method, followed by a case-by-case Results presentation, Discussion of the differential trajectories in relation to SAP theory, and conclusions regarding the implications for clinical training and future research.

METHOD

Research Design

This paper employs a *contrasting case illustration* design (Fishman, 2005; McLeod, 2010), a qualitative-quantitative mixed approach appropriate for the theory-building stage of an emerging clinical protocol. Two clients who received the Somatic Attachment Protocol (SAP) across 17 individual sessions are presented in parallel, one demonstrating a reconsolidation breakthrough trajectory (Client A) and one demonstrating a plateau trajectory without breakthrough (Client B). The design is not comparative in a statistical sense; no inferential analysis is conducted and no claims of efficacy are made. Instead, the two cases are juxtaposed to illuminate the proposed mechanisms of SAP, the conditions under which charge dissolution and emotional memory reconsolidation appear to occur, and the clinical factors that may facilitate or impede this process.

This methodology follows precedent in the case-based psychotherapy research tradition, in which single and small- n cases are used to generate mechanistic hypotheses, illustrate protocol delivery, and build theoretical frameworks that subsequent controlled research can test (Fishman, 2005; McLeod, 2010). The use of repeated, session-by-session quantitative measures, administered at every session rather than solely pre- and post-treatment, allows for trajectory-level analysis of symptom change that is unavailable in standard group designs and provides the temporal resolution necessary to observe the non-linear, phase-transition patterns theorised to characterise reconsolidation-based change (Ecker et al., 2012).



Ethical Considerations

Both clients provided written informed consent for their de-identified clinical data to be used for research and publication purposes. Consent was obtained prior to commencement of treatment and reaffirmed at the conclusion of the final session. All identifying information has been removed or altered to protect confidentiality; pseudonymous identifiers (Client A, Client B) are used throughout. As this paper was produced in the context of independent private practice without institutional affiliation, formal ethics board review was not available. The case illustration approach was undertaken in accordance with the ethical principles of the Singapore Association for Counselling and the Declaration of Helsinki with respect to the rights, dignity, and privacy of participants. No deception was employed. Both clients were informed that participation was voluntary and that their treatment would not be affected by their decision regarding consent for data use.

Participants

Both clients self-referred to the author's private practice in Singapore, seeking psychotherapeutic intervention for difficulties they described in terms of emotional dysregulation, relational distress, and disrupted sleep. Neither client was referred by another clinician, and neither presented with a current formal psychiatric diagnosis at intake. Both met the author's clinical criteria for attachment-based dysregulation: a history of early relational disruption, chronic autonomic hyperactivation in interpersonal contexts, and a presentation consistent with anxious or disorganised attachment patterns (Main & Hesse, 1990; Mikulincer & Shaver, 2016).

An additional inclusion criterion, applied on clinical grounds rather than by standardised protocol, was the presence of a prior adverse response to high-arousal exposure-based methods. Client A had previously attended EMDR with a different therapist and discontinued after several sessions, citing overwhelming affect. Client B had no prior trauma therapy but presented with a narrow window of tolerance on initial somatic assessment, indicating that a regulation-first approach would be clinically indicated (Ogden et al., 2006). Both clients were assessed as suitable for SAP on this basis. Table 1 summarises the characteristics of both clients at intake.

Table 1: *Participant Characteristics at Intake*

Characteristic	Client A	Client B
Age	36	34
Gender	Female	Female
Occupation	Professional	Professional
Referral	Self-referred	Self-referred
Presenting concerns	Hypervigilance, emotional reactivity in relationships, insomnia	Emotional dysregulation, relational distress, anxiety, sleep disruption



Attachment presentation	Disorganised/anxious; early relational disruption	Anxious; early relational disruption
Prior trauma therapy	EMDR: discontinued due to overwhelming affect	None
Psychiatric diagnosis at intake	None	None
Total sessions	17	17

Note. Data are drawn from clinical intake records and client self-report collected by the author in the course of treatment; no external data source applies.

Therapist

All sessions were conducted by the first author, a counsellor and psychotherapist in private practice in Singapore with 6 years of clinical experience. The author holds a master's in advanced counselling and is a clinical member with the Singapore Association for Counselling and the Australian Counselling Association. The author is also the developer of the Somatic Attachment Protocol (SAP) and is a trained practitioner of BrainSwitch 2.0® (Lee, 2025a, 2025b) and Multichannel Eye Movement Integration (MEMI; Deninger, 2021), having completed formal training with Joachim Tai Loong Lee (BrainSwitch 2.0®) and the MEMI Institute. The author's dual role as treating clinician and protocol developer is acknowledged as a limitation and is addressed in the Discussion. No independent therapist fidelity rating or supervision was conducted for these specific cases, which represents a further limitation.

The Somatic Attachment Protocol (SAP)

SAP is a process-based integrative clinical framework grounded in polyvagal theory (Porges, 2011), attachment theory (Bowlby, 1988; Schore, 2003), and contemporary models of emotional memory reconsolidation (Ecker et al., 2012; Nader et al., 2000). Its central theoretical proposition, detailed in the SAP Conceptual Framework v1.0, is that *dissolution of autonomic charge*, the reduction of residual physiological activation associated with unresolved emotional memory, is the essential condition for memory reconsolidation to occur and that this condition is produced through and above the specific techniques that serve it.

The protocol is structured across three broad clinical phases, each operationalised through the four primary SAP components: somatic observation, neural interruption, relational co-regulation, and MEMI. These phases are not rigidly time-delimited; clinical pacing is determined by the client's ongoing autonomic state as tracked session-by-session through somatic observation and SUDS monitoring. Table 2 provides an overview of the phase structure and component mapping.

**Table 2: SAP Phase Structure and Component Mapping**

Phase	Sessions (approx.)	Primary aim	SAP components emphasised
I: Stabilisation	1–6	Establish therapeutic alliance; map autonomic baseline, and introduce somatic observation; widen window of tolerance	Relational co-regulation; somatic observation; BrainSwitch 2.0® (introductory neural interruption); psychoeducation
II: Processing	7–13	Titrated activation of attachment-related charge; somatic tracking; charge modulation; early MEMI introduction	MEMI (phases 1–3); BrainSwitch 2.0® (advanced cueing); somatic observation; co-regulation under activation
III: Consolidation	13–17	Memory reconsolidation targeting; somatic identity anchoring; skill transfer; closure	Full SAP integration; multichannel MEMI; somatic new-state anchoring; self-practice skill consolidation

Note. Adapted from the SAP Conceptual Framework v1.0, an unpublished protocol manual developed by the author.

Protocol Components

BrainSwitch 2.0®: Developed by Lee (2025a, 2025b), this neuro-integrative neural interruption procedure is grounded in neuro-linguistic programming (NLP) sub-modality processing and memory reconsolidation theory, building on the original Brain Switch framework (Curtiss, 2007). The procedure guides the client through a structured sequence of shifting the visual, auditory, and visceral-kinaesthetic modalities of a maladaptive memory, briefly activating the memory trace and immediately interrupting it via attention and sensory redirection. This brief activation-and-interruption sequence is designed to render the memory labile, generating the prediction error required for reconsolidation (Lee, 2021; Nader et al., 2000). Crucially, the procedure is content-free: clients are not required to narrate or re-expose themselves to trauma material, reducing the risk of retraumatisation and maintaining a regulation-first stance consistent with the SAP framework. In this study, BrainSwitch 2.0® was introduced in Phase I and progressively deepened in Phases II and III, with advanced bilateral and symbolic cueing applied as the client's window of tolerance widened.

Phase II focuses on the titrated activation of attachment-related charge to allow somatic tracking and early MEMI introduction. To maintain a regulation-first architecture during this phase, SAP deliberately decouples autonomic activation from narrative trauma exposure. Because the integration of BrainSwitch 2.0® is strictly content-free, activation relies entirely on a brief visceral-somatic echo, the physical resonance of the memory, rather than prolonged cognitive re-storying. This structural boundary minimises the risk of emotional flooding,



keeping the client's nervous system safely anchored within the window of tolerance while the underlying memory trace is rendered labile.

Multichannel Eye Movement Integration (MEMI): MEMI (Deninger, 2021) is a multisensory eye movement protocol that extends the original Eye Movement Integration technique through four distinct eye movement pattern sets targeting limbic deactivation of fear memory encoding. Unlike standard EMDR bilateral stimulation, MEMI employs multiple directional channels, horizontal, diagonal, vertical, and full-field, in a progressive sequence designed to address the multi-channel sensory encoding of traumatic memory. The working-memory taxation mechanism identified in the eye movement literature (van den Hout et al., 2011; van den Hout & Engelhard, 2012) is understood within SAP as one pathway through which autonomic charge is reduced during memory activation, facilitating the state of charge dissolution necessary for reconsolidation. MEMI was introduced progressively from Phase II, beginning with horizontal tracking and advancing to full-field multichannel integration in Phase III.

Somatic Observation: As defined in the SAP framework, this is the practice of sustained, neutral, non-interpretive awareness of bodily sensations associated with emotional activation. It is distinguished from somatic tracking in that it explicitly excludes narrative interpretation or evaluative judgment, which the framework proposes would re-generate charge rather than allow its dissolution. Throughout all 17 sessions, clients were guided to track sensation moment-to-moment, naming location, quality, and intensity without story or analysis. This practice served both as the primary charge dissolution mechanism and as the transferable skill targeted for consolidation by the end of treatment, enabling clients to apply somatic observation independently to daily-life emotional activation (Levine & Frederick, 1997; Ogden et al., 2006).

Relational Co-regulation: Consistent with polyvagal theory (Porges, 2011) and the interpersonal neurobiology of affect regulation (Schore, 2003; Siegel, 1999), the therapist's regulated autonomic state was maintained as an active therapeutic instrument throughout all sessions. Co-regulation was operationalised through the therapist's sustained attunement to the client's autonomic shifts, pacing of interventions to the client's moment-to-moment somatic state, and the explicit use of calm prosody, facial expression, and presence as neurophysiological co-regulatory cues. This component was considered particularly critical for clients with disorganised attachment histories, for whom the relational context of activation determines whether that activation can be tolerated and processed (Main & Hesse, 1990; Schore, 2003).

Measures

Three validated psychometric instruments were administered at every session across the full 17-session course of treatment for both clients. Session-by-session administration, rather than pre/post only, was selected to capture trajectory-level data and enable examination of the timing and pattern of symptom change in relation to protocol phase. This approach is consistent with intensive repeated measurement designs in single-case psychotherapy research (McLeod, 2010).

Depression Anxiety Stress Scales – 21 (DASS-21): The DASS-21 (Lovibond & Lovibond, 1995) is a 21-item self-report instrument assessing depression, anxiety, and stress across three



seven-item subscales. Each item is rated on a 4-point Likert scale (0–3), with subscale scores multiplied by two to yield scores comparable to the full DASS-42. Total scores range from 0 to 126; higher scores indicate greater distress. The DASS-21 was selected for its strong psychometric properties, brevity appropriate to repeated administration, and its coverage of the three primary symptom domains most clinically relevant to attachment-based dysregulation presentations. Total scores are reported across all 17 sessions for both clients.

Subjective Units of Distress Scale (SUDS): The SUDS (Wolpe, 1969) is a single-item self-report scale on which clients rate their current subjective distress on a 0–10 scale (0 = complete calm; 10 = worst imaginable distress). Peak SUDS ratings were recorded at the point of greatest activation within each session. The SUDS provides a direct, within-session measure of autonomic charge as experienced by the client, making it the most proximal available indicator of the charge dissolution process central to SAP theory. Repeated SUDS tracking across sessions additionally captures the client's developing capacity to tolerate and regulate activation over time.

Impact of Event Scale – Revised (IES-R): The IES-R (Weiss & Marmar, 1997) is a 22-item self-report instrument measuring the subjective distress associated with a specific traumatic or stressful event across three subscales: intrusion, avoidance, and hyperarousal. Items are rated on a 5-point frequency scale (0–4); total scores range from 0 to 88. The IES-R was selected as the primary measure of hypervigilance and trauma-related symptomatology given its sensitivity to the intrusion and hyperarousal dimensions most directly implicated in attachment-based dysregulation (Porges, 2011; van der Kolk, 2014). A clinical cut-off of 33 or above is indicative of probable PTSD; scores at or below 8 represent subclinical or absent symptomatology. Table 3 summarises the three measures, their administration, and scoring.

Table 3: Summary of Measures, Administration, and Scoring

Measure	Items	Scale	Total range	Clinical cut-off	Administration
DASS-21	21	0–3 per item (×2)	0–126	≥28 moderate distress	Every session (17 times)
SUDS	1	0–10	0–10	≥7 high distress	Every session: peak within-session rating
IES-R	22	0–4 per item	0–88	≥33 probable PTSD	Every session (17 times)

Note. DASS-21 = Depression Anxiety Stress Scales–21 (Lovibond & Lovibond, 1995); SUDS = Subjective Units of Distress Scale (Wolpe, 1969); IES-R = Impact of Event Scale–Revised (Weiss & Marmar, 1997).

Data Analysis

Data analysis proceeded through three complementary approaches consistent with the case illustration methodology. First, quantitative symptom trajectories were examined visually and descriptively across all 17 sessions for each client on all three measures (DASS-21 total score,



SUDS peak, and IES-R total score). Pre-treatment scores (Session 1) and post-treatment scores (Session 17) are reported alongside the percentage change and clinical significance of change, defined as movement across established cut-off thresholds rather than statistical significance. Second, the session-by-session trajectory pattern was examined for evidence of the non-linear, phase-transition change pattern theorised to characterise reconsolidation-based interventions (Ecker et al., 2012), defined operationally as a change of 30% or more across three or fewer consecutive sessions following a period of gradual change. Third, session notes were reviewed thematically for qualitative indicators of charge dissolution and reconsolidation, including spontaneous somatic completion reports, post-session narrative shift, and behavioural change observations, and these are reported alongside the quantitative data for each case.

No inferential statistical analysis was conducted. The two cases are not compared statistically. Differential analysis is qualitative and mechanistic: the cases are examined side by side to identify factors present in Client A's trajectory that were absent or attenuated in Client B's, with reference to the SAP conceptual framework as the interpretive lens. A three-month qualitative follow-up was conducted for Client A by telephone; Client B did not respond to follow-up contact.

Limitations of the Method

Several methodological limitations are acknowledged. The therapist-as-researcher design means that the treating clinician and the protocol developer are the same person, introducing the possibility of allegiance effects, confirmation bias in qualitative data interpretation, and the absence of independent fidelity monitoring. No independent assessor administered or scored the measures; all ratings were client self-report, which, while consistent with standard clinical practice, is susceptible to demand characteristics. The absence of a standardised therapist adherence or competence rating prevents verification that SAP was delivered consistently across sessions or between clients.

The sample size of two precludes any statistical analysis or generalisation. The two clients, while similar in their broad presentations, were not systematically matched, and any differences in outcome may reflect individual factors unrelated to the protocol. The absence of a control or comparison condition means that the role of non-specific therapeutic factors (therapeutic alliance, the passage of time, regression to the mean) cannot be separated from the specific effects of SAP. These limitations are addressed further in the Discussion, and their implications for future research design are noted in the Conclusion.

RESULTS

Client A: The Breakthrough Trajectory

Client A presented with severe baseline attachment-based dysregulation, hypervigilance, and treatment-resistant insomnia. Quantitative assessment at Session 1 revealed elevated distress across all metrics (DASS-21 Total = 74; IES-R = 52; Peak SUDS = 8). Phase I (Sessions 1–6) demonstrated gradual stabilization, with a steady but linear reduction in subjective and objective distress.



Qualitative somatic markers emerged early in Phase II. During Session 5, while engaging in initial MEMI horizontal tracking, Client A provided an unsolicited somatic observation, noting *"something loosening"* in her chest. This shift preceded the first of three distinct somatic completion events in Session 7, where she explicitly stated, *"I felt it finish,"* during somatic observation of a reactivated relational memory.

A non-linear phase transition occurred across Sessions 15 to 17. During these final consolidation sessions, Client A experienced a profound somatic-symbolic integration breakthrough. Quantitative measures dropped sharply and precipitously into sub-clinical ranges by Session 17 (DASS-21 Total = 12; IES-R = 6; Peak SUDS = 1). The rate of symptom reduction across these final three sessions was more than six times the rate observed across the first fourteen sessions. At the three-month qualitative telephone follow-up, gains were fully sustained, and Client A reported spontaneous, independent use of the somatic self-practice procedure during daily-life emotional activation, stating it was *"just something I do now when I feel something building."*

Client B: The Plateau Trajectory

Client B presented with a comparable clinical baseline of emotional dysregulation and relational sleep disruption (Session 1: DASS-21 Total = 70; IES-R = 48; Peak SUDS = 7). Across Phase I and Phase II, Client B demonstrated modest, incremental, and highly linear symptom reduction. However, unlike Client A, Client B exhibited a distinct absence of early somatic responsiveness or spontaneous interoceptive tracking.

Throughout all 17 sessions, Client B maintained procedural compliance but reported no spontaneous somatic completion events or physical shifts. When the critical mismatch experience was introduced in Session 14, Client B demonstrated a profound disconnect between cognitive insight and somatic experience. While she could intellectually recognise safety, she explicitly reported, *"I know it's different now but it still feels the same."*

Client B's symptom profile plateaued from Session 14 onward and failed to reach the non-clinical range by termination (Session 17: DASS-21 Total = 42; IES-R = 31; Peak SUDS = 5). Client B did not respond to subsequent follow-up contact.

DISCUSSION

This paper presented two contrasting case illustrations of the Somatic Attachment Protocol (SAP), an integrative, process-based framework grounded in the proposition that dissolution of autonomic charge is the essential condition for emotional memory reconsolidation. As detailed in the preceding narratives, Client A demonstrated a clinically significant trajectory culminating in a breakthrough event consistent with reconsolidation theory across Sessions 15–17, with all three outcome measures reaching non-clinical ranges and gains sustained at three-month follow-up. Client B, by contrast, demonstrated modest, plateauing symptoms. reduction across the full 17-session course without breakthrough, with no measures reaching a non-clinical range.

The divergence between these two trajectories provides an empirical window into the underlying mechanisms of process-based somatic work. Three primary theoretical claims are



examined in turn: the mechanistic significance of somatic access versus purely cognitive insight; the role of the therapist's nervous system as an active regulatory scaffold; and the SAP position that somatic charge regulation constitutes a transferable, generalisable skill that extends therapeutic reconsolidation beyond the clinical encounter.

Charge Dissolution as the Essential Condition: What the Differential Reveals

The most clinically instructive feature of the comparative data is not that Client B failed to improve (she did improve, modestly and consistently) but that her improvement plateau fell well short of the threshold at which the SAP framework predicts reconsolidation should become available. At Session 14, when the mismatch experience was introduced, Client B was cognitively receptive to the new information but somatically unchanged. Her explicit report, 'I know it's different now but it still feels the same,' is a precise clinical statement of the condition the reconsolidation literature identifies as insufficient for synaptic-level memory revision: the cognitive availability of a mismatch without the corresponding somatic prediction error (Ecker, 2015; Ecker et al., 2012).

The reconsolidation model, as articulated by Nader and colleagues (2000) and translated into psychotherapeutic frameworks by Ecker et al. (2012), requires that three conditions be met in sequence: the emotional memory must be reactivated; a genuine mismatch experience must be generated while the memory is in its labile, reactivated state; and the memory must be allowed to restabilise around the updated information. The critical phrase is *genuine mismatch*. The literature is explicit that cognitive reframing alone, understanding that a past experience was not one's fault, or that a former threat is no longer present, does not constitute the mismatch required to trigger reconsolidation (Ecker, 2015). The mismatch must be experienced at the level at which the memory was encoded: for attachment-based memories consolidated in the body, the autonomic nervous system, and procedural relational learning, the mismatch must be somatic. This is precisely what Client B could not access and precisely what Client A was able to access by Session 14 after fourteen sessions of progressive somatic skill development.

This finding supports the SAP theoretical hierarchy in which charge dissolution is positioned above the techniques that facilitate it. Neural interruption, MEMI, and somatic observation are not ends in themselves; they are pathways toward the state of charge dissolution that makes the body available for mismatch experience and reconsolidation. Client B received all four SAP components across 17 sessions with **intended** procedural fidelity. The absence of a breakthrough was not a failure of technique delivery but a failure to establish the somatic substrate that the techniques were designed to produce. This distinction, between procedural compliance and somatic engagement, has significant implications for how protocol adherence is conceptualised and assessed in somatic therapies, and suggests that fidelity monitoring in future SAP research should attend to somatic indicators as much as procedural ones.

The Predictive Significance of Early Somatic Responsiveness

The session-by-session data reveal that the differential between the two trajectories was detectable from early in treatment, well before the breakthrough phase. In Session 5, Client A produced a spontaneous unsolicited somatic observation during MEMI horizontal tracking: 'something loosening.' Client B produced no equivalent event at any point across 17 sessions. By Session 7, Client A reported a spontaneous somatic completion during processing, stating,



'I felt it finish.' This was the first of three such events across the treatment course. Client B reported no somatic completion event at any point.

This pattern suggests that early somatic responsiveness, the client's capacity to make contact with sensation rather than simply performing the somatic procedure, may function as an early indicator of reconsolidation potential within the SAP framework. The distinction parallels findings in the broader somatic therapy literature suggesting that interoceptive awareness, the capacity to notice and attend to internal bodily states, is both a prerequisite for and an outcome of effective somatic intervention (Ogden et al., 2006; van der Kolk, 2014). Where interoceptive access is limited at intake and does not develop across the stabilisation phase, the clinical question becomes whether somatic capacity needs to be more explicitly targeted as a primary intervention objective before charge activation is attempted, rather than being assumed to develop naturally through protocol exposure.

Client A's history of previous EMDR discontinuation due to overwhelming affect might initially appear to suggest a more fragile presentation than Client B's. The data suggest the opposite: Client A's affect, while overwhelming when activated without sufficient regulation, was available to be felt: the somatic channel was open, even if its charge was excessive. Client B's affect appeared more defended: her window of tolerance was wider in the sense that she did not become overwhelmed but narrower in the sense that activation did not reach the somatic level where charge dissolution and mismatch experience are possible. This is consistent with Schore's (2003) account of right-brain implicit procedural defences in insecure attachment, in which the cost of chronic dysregulation is met by a progressive dissociation from somatic experience rather than by somatic overflow.

Therapist Attunement and the Co-Regulatory Scaffold

A consistent feature of Client A's trajectory from Session 10 onward was her progressive use of the therapist's regulated autonomic state as a co-regulatory reference. Session notes record her first spontaneous tracking of the therapist's calm as a physiological cue in Session 10; by Session 16 she was demonstrating autonomous self-regulation within sessions without prompting. This developmental arc mirrors the trajectory described in interpersonal neurobiology: co-regulation precedes self-regulation, and the internalisation of a regulated other's state is the mechanism by which self-regulation capacity is built (Schore, 2003; Siegel, 1999). For clients with attachment-based dysregulation, whose early relational experience did not provide this co-regulatory scaffolding, the therapeutic relationship itself functions as the neurobiological environment in which the capacity for somatic self-regulation is developed for the first time (Porges, 2011).

Client B showed some uptake of co-regulation in Sessions 10 and 11, but this did not deepen or generalise. The therapist's calm was noted as available, but Client B did not appear to use it as an active somatic reference. This may reflect the same somatic accessibility issue identified above: co-regulation requires that the client's nervous system be sufficiently receptive to another's regulatory cues, a capacity that is itself dependent on a degree of ventral vagal availability (Porges, 2011). Where somatic access is limited, the therapist's regulatory state may be perceived cognitively, as the therapist seeming calm, without producing the neurophysiological entrainment that constitutes genuine co-regulation.



These observations have practical implications for clinical training in SAP and related neuro-somatic approaches. The therapist's own capacity for sustained autonomic regulation under activation is not merely a relational virtue but a technical requirement: it is the instrument through which the co-regulatory scaffold is provided. This places demands on therapist training that extend beyond knowledge of protocol procedures to include the therapist's own somatic self-regulation skill, the same skill that SAP aims to cultivate in clients. Supervision and training programmes for SAP practitioners should therefore attend explicitly to the therapist's interoceptive capacity and autonomic flexibility, not only their procedural competence.

The Transferable Skill Argument: Beyond the Clinical Encounter

Client A's three-month follow-up data provide preliminary support for one of the SAP framework's most theoretically distinctive claims: that somatic charge regulation, once acquired, functions as a generalisable, transferable skill that the client can apply independently to daily-life emotional activation, extending reconsolidation processes beyond the therapeutic encounter (Siegel, 2010). At follow-up, Client A reported spontaneous, independent use of the self-practice somatic observation procedure for lower-charge emotional activation: 'just something I do now when I feel something building.' This unsolicited description is consistent with the SAP self-practice mode, in which clients apply somatic observation to everyday emotional experiences without therapeutic facilitation, enabling gradual reconsolidation of the ordinary emotional patterns that constitute the substrate of chronic dysregulation.

The clinical significance of this observation extends beyond outcome measurement. Many evidence-based therapies produce change that is contingent on continued clinical contact or relapse-prevention maintenance; the mechanism of change does not necessarily operate independently of the therapist. The SAP framework's explicit articulation of a transferable skill changes the architecture of therapeutic dependence: the goal of treatment is not only symptom reduction but also the acquisition of a neurological capacity that the client then owns and applies. This is what distinguishes the SAP self-practice mode from standard between-session homework: it is not a technique to be practised but a perceptual orientation to internal states that, once established, runs continuously. Client A's follow-up report suggests this orientation had been established and that it was functioning as predicted. These observations require replication across a larger sample with standardised follow-up measures before any generalisable conclusions can be drawn, but they are consistent with the theoretical account and warrant prospective investigation.

SAP and the Broader Trauma Therapy Landscape

The SAP framework shares foundational theoretical assumptions with several established approaches. Its emphasis on autonomic regulation and the window of tolerance is consistent with Sensorimotor Psychotherapy (Ogden et al., 2006) and with the polyvagal-informed clinical principles developed by Porges (2011) and applied by Dana (2018) and others. Its use of bilateral eye movement stimulation within MEMI draws on the same working-memory taxation mechanism identified in the EMDR literature (van den Hout et al., 2011; van den Hout & Engelhard, 2012). Its reconsolidation targeting aligns with Coherence Therapy's systematic mismatch sequence (Ecker et al., 2012). What SAP offers that is distinct from each of these is an integrated protocol architecture that positions charge dissolution as the superordinate mechanism above all technique components and that explicitly cultivates client-owned somatic skill as the primary long-term outcome alongside symptom reduction.



The regulation-first, attachment-sensitive design of SAP also positions it as a candidate approach for the specific subpopulation for whom high-arousal exposure methods are contraindicated: clients whose previous therapy attempts produced overwhelming affect or dissociative responses and clients whose attachment histories have produced somatic defences against activation rather than somatic overflow. Client A exemplifies this population. Her prior EMDR discontinuation predicts neither poor prognosis nor intolerance of activation within a differently structured protocol. Instead, it reflects the incompatibility between an exposure-first design and an attachment system that requires regulation before processing, a clinically important finding that deserves prospective investigation with a larger population.

LIMITATIONS

The limitations of this study are substantial and are acknowledged without mitigation. The sample of two cases does not permit statistical analysis, and no inference to broader populations is warranted. The therapist-as-researcher design introduces allegiance effects and confirmation bias that cannot be fully controlled through transparency alone. The absence of independent assessment, therapist fidelity rating, or treatment-as-usual comparison condition means that non-specific therapeutic factors (alliance quality, the passage of time, and regression to the mean) cannot be separated from SAP-specific effects. Client B's non-response to follow-up contact introduces attrition bias at the outcome level.

The SAP framework itself, while grounded in established neuroscientific theory, has not been independently operationalised or validated as a distinct protocol by researchers external to its developer. The conceptual constructs of autonomic charge and charge dissolution, while theoretically coherent and clinically useful, are not yet operationalised through standardised, externally validated measures; their presence is inferred from self-report and clinical observation rather than measured directly. The Clinical Q neurological assessment used in the BrainSwitch 2.0® research (Lee, 2025a) was not available in the present study, representing a gap in objective neurological data that future research should address.

Finally, the present paper addresses only two of the many possible presentations for which SAP might be indicated. Both clients were adult female professionals presenting with attachment-based dysregulation without a current psychiatric diagnosis. The generalisability of the findings to male clients, clinical populations with comorbid diagnosis, and presentations involving acute trauma, complex PTSD, or dissociative features is unknown.

CONCLUSION

This paper presented the first published case illustration of the Somatic Attachment Protocol (SAP), a process-based integrative framework for attachment trauma and chronic autonomic dysregulation. Across two contrasting cases, one demonstrating a reconsolidation breakthrough trajectory and one demonstrating a plateau without breakthrough, the clinical data provide preliminary illustrative support for three theoretical propositions that are the core of the SAP framework.



First, that charge dissolution, the reduction of residual autonomic activation through sustained somatic observation, is not a preparatory step in trauma therapy but the essential condition for emotional memory reconsolidation to occur, positioned above and prior to the specific techniques that facilitate it. The two cases illustrate this proposition through their differential: Client B received the full SAP protocol across 17 sessions and improved modestly; the absence of somatic access meant that charge dissolution was not established, the conditions for prediction error were not met, and reconsolidation did not occur. Client A's trajectory shows what becomes possible when that condition is met.

Second, that the breakthrough pattern associated with reconsolidation is a phase transition rather than a linear accumulation of therapeutic doses. Client A's rate of change across the breakthrough sessions was more than six times the rate observed across the preceding fourteen sessions, a pattern inconsistent with gradual dose-response models and consistent with the neurobiological account of memory reconsolidation as a discrete unlocking-and-re-encoding event (Ecker et al., 2012; Nader et al., 2000).

Third, that somatic charge regulation, once acquired within the therapeutic context, can function as a transferable, client-owned skill that extends reconsolidation processes beyond the clinical encounter into daily life. Client A's three-month follow-up data provide preliminary qualitative evidence for this claim, with reported sustained gains and independent application of somatic self-practice consistent with the SAP self-practice mode.

Directions for Future Research

The case illustrations presented here generate a set of testable hypotheses that future research should address. The most urgent is the development of a standardised, externally validated operational measure of somatic access and charge dissolution, the central mechanism of the SAP framework, that does not rely solely on client self-report. The Clinical Q neurological assessment used in the BrainSwitch 2.0® case series (Lee, 2025a) represents one candidate for objective pre/post neurological tracking; integration of Clinical Q into future SAP studies would provide a biological correlate of the somatic shifts described qualitatively in the present cases. Heart rate variability (HRV) monitoring as a continuous session-level measure of autonomic state is a further candidate, given the direct relationship between HRV and ventral vagal regulation (Porges, 2011).

A second research priority is the prospective identification of early somatic responsiveness as a predictor of reconsolidation outcome. The present data suggest that the presence or absence of spontaneous somatic observation events in the first six sessions may serve as an early prognostic indicator. A prospective study tracking somatic responsiveness from session one, alongside standard outcome measures, would allow this hypothesis to be tested and could inform adaptive treatment planning by identifying earlier which clients require more intensive somatic access work before activation is introduced.

Larger *n* studies using multiple single-case designs ($n \geq 8$) with independent assessors, therapist fidelity ratings, and standardised follow-up intervals would provide the next level of empirical scrutiny. A non-concurrent multiple baseline design, in which SAP is introduced at staggered time points across clients with similar presentations, would enable examination of within-person causal claims while maintaining the session-by-session data resolution that group pre-post designs cannot provide (McLeod, 2010). Beyond case-based work, dismantling



studies examining the relative contribution of the four SAP components (somatic observation, neural interruption, MEMI, and co-regulation) to outcome would clarify the active ingredients of the protocol and inform evidence-based training.

Finally, the question of for whom SAP is most indicated requires systematic investigation. The present cases suggest particular promise for clients with attachment-based dysregulation who have not responded to or cannot tolerate high-arousal exposure methods. Prospective comparison of SAP with EMDR and other exposure-based approaches in this specific subpopulation, using an adaptive treatment design that allows protocol modification based on early somatic responsiveness data, would provide the clinical evidence base needed for SAP to take its place as a formally recognised alternative pathway within the trauma therapy landscape.

Closing Statement

The Somatic Attachment Protocol is at an early stage of its empirical development. The two cases presented here are offered not as proof of efficacy but as a theoretical argument illustrated by clinical data: that what makes trauma therapy work, for the population for whom it works durably, is the establishment of a somatic condition, charge dissolution, in which the nervous system can receive new information at the level at which the original wound was encoded. When that condition is established, change is rapid, non-linear, and lasting. When it is not, change may still occur, but it will remain incomplete, because the emotional memory has not been reached. This is what Client A and Client B, taken together, most clearly show.

The theoretical contribution of SAP is the precision with which it names this condition, places it at the centre of its conceptual hierarchy, and designs its clinical architecture to produce it, not as a byproduct of technique but as the explicit and primary target of every session. Whether this precision is clinically and empirically warranted is a question for the research programme that these cases are intended to initiate.

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