WordTrails as a Trauma-Informed Tool: A Neuropsychological Perspective

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Part I: WordTrails - How Play Activates the Capital-S Self

WordTrails is more than a word game — it is a dynamic, adaptive process that activates the neural pathways of reflection, meaning-making, and connection. Its design allows it to be played solo, in pairs, in groups, or directed with each format engaging different psychological and neurological circuits.

WordTrails is a powerful practice for self-discovery and emotional healing. Rooted in neuroscience and trauma-informed principles, it blends play with evidence-based techniques like interoception, bilateral processing, and polyvagal regulation. Each element of the game—from embodied word choice to symbolic bridging—becomes a pathway for integration, meaning-making, and flow. Whether you seek clarity, emotional release, or a creative reset, this method turns language into a living map of the Self.

What makes this experience truly transformative is the brain state it creates: a dynamic interplay of calm alertness, creative openness, and emotional safety. During play, the nervous system shifts toward parasympathetic regulation, while the brain enters a theta-dominant state—similar to deep meditation or creative flow. This state is optimal for memory reconsolidation, emotional processing, and new neural pathway formation. In short, WordTrails isn't just a game; it's a structured doorway into the neurobiology of healing and insight.

WordTrails unites all three modes—storytelling, trinket-based anchoring, and collaborative reflection—into a single, integrative experience that activates the brain's social engagement system, fosters co-regulation, and cultivates narrative coherence. Across all styles of play, the dominant brain state is one of safe connection and reflective integration, engaging the prefrontal cortex and calming the amygdala to allow empathy, perspective-taking, and meaning-making to flourish.

It is important to recognize the psychological framing in language: for mediators and professional settings, the term "tool" conveys purpose, structure, and utility, while the term "game" may feel informal or frivolous in certain contexts. Positioning WordTrails as a trauma-informed relational tool ensures maximum credibility across diverse audiences while preserving its inherently engaging and human-centered design.

An Experiential Example

When I first played WordTrails, I walked in with only a partial grasp of the concept. The game was laid out across a large table — colorful tokens, cards, and an unused spinner, each visually stimulating in its own right. My partner, James, explained the rules and demonstrated a turn: choose a token that reflects your present feeling or state of mind, without overthinking.

We began alternating turns, each selecting words that built upon the other's choices. As we played, two distinct "paths" emerged: one representing an area of my life filled with grief and difficulty, and another reflecting my current joys and momentum. In the center, a "bridge" of connecting words formed — not because the game prescribed it, but because of the way our interaction unfolded. In making each choice,

I noticed a subtle shift: I was actively deciding, experimenting, and reorganizing my thinking. This repeated engagement in choice and reflection felt like my brain was building new patterns — a process consistent with neuroplasticity, where novel experiences strengthen and create new neural connections.

This is a crucial point: there is no standard configuration or set outcome in WordTrails. Each board is unique to the people and the moment of play. A different day, a different mood, or a different partner would have produced a completely different structure.

Throughout the game, we spoke little, yet a quiet relational attunement developed. I noticed James often mirrored my choices; later, he confirmed that was intentional. The result was a sense of deep relaxation and inward focus — a meditative check-in with myself — while also maintaining subtle social connection.

Neuro-mechanisms at play in my personal WordTrails experience

1. **Embodied Choice & Interoception**
   When James said, "Don't think too much, just choose," I bypassed overactive analytical thinking and went straight to *felt-sense* decision-making. Neurologically: This engages the insula (interoceptive awareness), allowing a player to check in with body-based emotional signals — a core way of accessing the capital-S Self in Internal Family Systems (IFS) and trauma recovery literature.

2. **Emotional Processing in Two Hemispheres**
   The game board literally had two sides: one for pain/grief and one for positive life areas. Neurologically: This mirrors the bilateral processing principle used in therapies like EMDR — helping the brain integrate trauma by linking emotional memory (right hemisphere) with more cognitive, future-oriented thinking (left hemisphere).

3. **Bridge-Building & Integration** The central "bridge" of words connecting both sides is more than symbolic — it mirrors how the brain forges *new neural pathways* between emotional and cognitive centers when a safe environment encourages meaning-making. Consciousness research calls this vertical integration (linking lower emotional brain structures with higher cortical reasoning).

4. **Relational Mirroring & Co-regulation** James and I were subtly mirroring each other's moves. Neurologically: This engages mirror neurons and supports ventral vagal activation (polyvagal theory), fostering safety and trust. This state is a gateway for deeper access to the Self.

5. **Quiet Presence & Flow State** Minimal talking, steady pace, visual engagement, and self-reflection combined to shift me into a flow state. In this state, the default mode network(DMN- self-referential worry and rumination) quiets down, allowing deep self-connection without overthinking.

The Neurological Dimensions of Play: Different modes of WordTrails engage distinct neural systems:

A deeper dive into Play Modes

Solo play mode

- Primarily engages intra-personal awareness (self-reflection, self-dialogue).
- Activates default mode network (DMN) and medial prefrontal cortex — both linked to autobiographical memory and the sense of Self.
- Encourages a meditative, contemplative state where pattern-making is internal.

Two-player mode

- Introduces co-regulation through relational mirroring.
- Activates social brain networks (temporal-parietal junction, anterior cingulate cortex) that are important for empathy and mentalizing.
- Adds layers of nonverbal communication and attunement — often subtly influencing word choice and token selection.

Group mode

- Expands complexity through multi-perspective meaning making.
- Triggers collective intelligence dynamics - emergent patterns formed by overlapping inner narratives.
- Often amplifies novelty, surprise and creativity because of the diversity of input.

Guided mode

- Facilitates goal-oriented or guided exploration under the supervision of a trained facilitator (e.g., mediator, therapist).
- Engages both intra-personal and inter-personal neural networks, supporting emotional regulation, perspective-taking, and structured problem-solving.

- Activates executive function (dorsolateral prefrontal cortex) for intentional decision-making and adaptive strategy formulation.
- Supports relational repair and conflict resolution by fostering co-created understanding between participants.
- Encourages reflective processing within a safe, scaffolded environment, enhancing integration of experiences and insights.
- Amplifies the emergence of the Capital-S Self by combining self-directed choice with guided social and emotional scaffolding.

Part II: How WordTrails Works

WordTrails: Neurological Activation of the Capital-S Self & Mode-Specific Benefits

WordTrails is more than a language-based tabletop activity—it is a structured yet open-ended process that stimulates multiple neural networks simultaneously, creating conditions that support the emergence of the capital-S Self. Drawing from trauma studies, psychology, and consciousness research, we can understand its impact across three key dimensions: attention regulation, emotional integration, and self-referential processing.

1. Attention Regulation and Prefrontal Activation
Selecting and placing words engages the dorsolateral prefrontal cortex (DLPFC), a region central to executive functioning and sustained attention (Miller & Cummings, 2017). The game's visual and tactile components recruit the brain's parietal and occipital areas, fostering a state of *relaxed focus*—a balance between alertness and ease. This balance is known to increase cognitive flexibility, a core aspect of Self-led functioning (Siegel, 2020).

2. Emotional Integration and the Limbic System
Word selection is guided by internal cues—feelings, memories, or intuitions—which recruits the limbic system, particularly the amygdala (emotional salience) and hippocampus (contextual memory). The safe, playful structure of WordTrails supports *dual awareness*: the ability to engage with emotionally charged content while remaining anchored in the present. This mirrors trauma-informed practices that rewire the brain's threat-detection systems toward safety (van der Kolk, 2014).

3. Self-Referential Processing and the Default Mode Network
The reflective nature of the game activates the medial prefrontal cortex (mPFC) and posterior cingulate cortex (PCC)—key nodes of the Default Mode Network (DMN), which is involved in autobiographical memory and meaning-making (Raichle, 2015). In healthy states, DMN activation supports coherent self-narratives. In WordTrails, the process of linking words into "paths" mirrors the integrative process of bringing disparate life experiences into a unified self-story, an essential function of the capital-S Self.

4. Relational Resonance and Mirror Neurons
When played with others, WordTrails introduces an additional layer: interpersonal synchrony. Observing and responding to another player's choices engages the mirror neuron system (Rizzolatti & Sinigaglia, 2016), enhancing empathy and attunement. This co-regulation deepens the neurobiological sense of connection—a foundational state for Self-leadership in Internal Family Systems (IFS) theory (Schwartz, 2021).

In sum: WordTrails uses a multisensory, choice-driven process to activate neural systems that govern attention, emotional regulation, self-referential processing, and relational integration. Whether played solo, in pairs, in groups, or in a directed/guided session, it supports a shift from fragmented or reactive states toward integrated, Self-led awareness.

Specific Experiences and Benefits by Play Mode

Different modes of play engage distinct neural systems.

1. **Solo Play:** Cultivating Deep Self-Reflection and Inner Integration
Playing WordTrails solo engages primarily intra-personal neural networks, encouraging introspection and self-awareness. Key benefits include:

- Enhanced Interoceptive Awareness: Activates the insula, improving recognition of bodily sensations and emotional states (Craig, 2009).
- Strengthened Default Mode Network (DMN): Supports autobiographical memory and coherent self-narrative construction (Raichle, 2015).
- Emotional Regulation: Facilitates engagement with difficult feelings in a contained, self-paced manner, fostering bottom-up integration of trauma memories (Siegel, 2020; van der Kolk, 2014).
- Mindfulness and Flow: Encourages a meditative state with reduced rumination and improved cognitive flexibility (Csikszentmihalyi, 1990).

2. **Interpersonal Play (paired and group)**: Activating Relational Safety and Collective Intelligence
Playing WordTrails with others recruits social brain circuits that foster empathy, co-regulation, and collaborative meaning-making. Benefits include:

- Mirror Neuron System Engagement: Enhances empathic attunement and understanding through reciprocal observation and imitation (Rizzolatti & Sinigaglia, 2016).
- Ventral Vagal Activation: Polyvagal theory explains how safe social engagement calms the autonomic nervous system, supporting emotional regulation and presence (Porges, 2011).
- Distributed Neural Network Activation: Temporoparietal junction, anterior cingulate cortex, and other social cognition regions are engaged, promoting perspective-taking, social problem-solving, and relational trust (Decety & Lamm, 2007).
- Co-created Meaning and Social Learning: Players co-construct narratives, process trauma collectively, and develop adaptive strategies while fostering a sense of belonging (Schore, 2012; Yalom, 2005).

- Enhanced Creativity and Novelty: Diverse perspectives increase unpredictability, stimulating reward circuits and emergent pattern formation (Kaufman & Gregoire, 2015).

3. **Directed/Guided Play**: Facilitated Integration and Goal-Directed Outcomes
When guided by a facilitator—such as a therapist, mediator, or trained coach—WordTrails additionally recruits executive control networks to support structured reflection and goal-oriented interaction. Benefits include:

- Executive Control and Cognitive Flexibility: Facilitated framing activates dorsolateral and ventrolateral prefrontal cortices, enabling adaptive decision-making and guided problem-solving (Diamond, 2013).
- Co-Regulation in High-Stakes Interactions: Facilitators help participants manage emotional reactivity, enabling safe exploration of difficult relational dynamics, e.g., in divorcing couples or family mediation (Siegel, 2012; Cozolino, 2014).
- Goal-Oriented Narrative Construction: Participants collaboratively generate insights and resolutions, reinforcing perspective-taking, empathy, and shared understanding.
- Enhanced Therapeutic Efficacy: The guided context leverages structured scaffolding to accelerate integration of emotional, cognitive, and relational learning, supporting trauma-informed outcomes (Shapiro, 2018; Linehan, 2015).

In sum: Whether played solo, in interpersonal settings, or in directed/guided contexts, WordTrails activates neural networks governing attention, emotional regulation, self-referential processing, and relational integration. Its flexibility allows participants to explore, reflect, and connect in ways that support the emergence of the capital-S Self and adaptive coping.

Part III: The Role of Trinkets: Anchoring Meaning and Facilitating Neuroplasticity

A distinctive feature of WordTrails is the use of trinkets — small symbolic tokens that players place on chips or cards they find especially meaningful.
Each player gets an equal number of trinkets, and phase one of the game concludes when all trinkets have been placed.
This mechanic adds a tangible layer to the abstract cognitive and emotional work of the game, providing both symbolic and neurological reinforcement.

Psychological and Neurological Mechanisms:

- **Salience and Memory Encoding:** Assigning a trinket to a chip or card engages the brain's reward and salience networks, including the ventral striatum and orbitofrontal cortex, enhancing the memorability of chosen words and associated emotions (Knutson & Cooper, 2005).
- **Goal-Directed Behavior and Prefrontal Activation:** The finite number of trinkets introduces a structured endpoint, engaging executive function and planning circuits (dorsolateral prefrontal cortex), supporting sustained attention and intentional decision-making (Miller & Cummings, 2017).

- **Emotional Anchoring and Neuroplasticity:** By physically marking meaningful words, players consolidate affective and cognitive associations. Repeatedly linking experience to action strengthens synaptic connections, a demonstration of experience-dependent neuroplasticity (Kolb & Gibb, 2011).
- **Closure and Reflective Integration:** The completion of trinket placement provides a sense of closure, which can facilitate reflective processing and enhance self-referential integration through the medial prefrontal cortex and hippocampus (Raichle, 2015).

Neuropsychological Implications of the trinkets:

- **Experience-Dependent Neuroplasticity:** By physically marking meaningful words, trinkets strengthen synaptic connections associated with emotional salience and memory encoding (Kolb & Gibb, 2011).
- **Emotional Integration:** Placement highlights moments of personal significance, supporting limbic system engagement (amygdala, hippocampus) and reinforcing adaptive emotional processing (Knutson & Cooper, 2005).
- **Cognitive Closure and Self-Reflection:** Completing the trinket placements provides a structured sense of completion, engaging prefrontal circuits responsible for planning, decision-making, and reflective evaluation (Miller & Cummings, 2017).
- **Facilitates Shared Meaning in Group or Directed Play:** In multi-player or guided settings, trinkets serve as visual anchors for co-created narratives, enhancing relational resonance and collaborative insight (Raichle, 2015; Rizzolatti & Sinigaglia, 2016).

In sum, trinkets are more than decorative elements — they function as neurocognitive tools that consolidate learning, anchor emotional significance, and provide closure, enriching both solo and social dimensions of WordTrails.

The trinket mechanic encourages players to slow down, notice what resonates, and make intentional choices. In doing so, it supports the emergence of self-directed awareness, reinforces emotional learning, and promotes the integration of personal experiences into a coherent self-narrative.

This tangible act of marking significance bridges abstract reflection with concrete behavior, amplifying the therapeutic potential of the game.

Summary Across all modes, the act of selecting words and placing trinkets engages both bottom-up emotional awareness (insula, limbic system) and top-down executive processing (dorsolateral prefrontal cortex), supporting neuroplastic change, emotional integration, and the development of the Capital-S Self.

The trinket mechanic adds a tangible, intentional layer that strengthens memory, emphasizes meaningful content, and provides a structured sense of closure — making the experience both deeply personal and relationally resonant.

In plain terms: Trinkets are small tokens players place on words or cards that feel especially meaningful. This physical action helps the brain mark and remember important insights, strengthens emotional processing, and provides a sense of completion. In group or guided play, trinkets also create shared points of meaning, helping players connect and co-create understanding. Simply put, trinkets make the experience more tangible, reflective, and neurologically impactful.

Summary: How and Why WordTrails Works — Neuropsychological Highlights

- Activates Executive Function & Attention: Engages the dorsolateral prefrontal cortex to support focused, flexible thinking and intentional word selection, enhanced further in guided settings where facilitators structure goals and frame reflection (Diamond, 2013).
- Facilitates Emotional Integration: Involves limbic system areas (amygdala, hippocampus), allowing players to safely explore and regulate emotions linked to memories and trauma. Directed play strengthens co-regulation and safety in high-stakes interactions, such as conflict resolution or therapeutic guidance (Siegel, 2012; Cozolino, 2014).
- Enhances Self-Reflection: Stimulates the Default Mode Network, enabling autobiographical memory and coherent self-narratives critical to the capital-S Self. Facilitators can help participants frame insights and integrate learning for more structured self-understanding.
- Promotes Relational Resonance (in paired/group and directed play): Activates mirror neuron systems and social brain networks that foster empathy, attunement, and co-regulation. Guided contexts amplify relational understanding in challenging or goal-directed scenarios.
- Supports Trauma Healing: By balancing top-down executive control with bottom-up emotional processing, it helps rewire threat responses into safe engagement, with guided facilitation accelerating therapeutic outcomes (Shapiro, 2018; Linehan, 2015).
- Flexible and Adaptive: The game's open-ended structure allows personalized, unique experiences that mirror each player's inner landscape and social context, whether solo, social, or facilitated.

In sum: WordTrails works because it uniquely combines focused attention, emotional exploration, self-reflection, and relational attunement within a safe, playful environment. Guided facilitation enhances this process, supporting trauma-informed outcomes, goal-directed learning, and collaborative meaning-making. By allowing each player's experience to shape the game, WordTrails becomes a flexible, powerful tool for personal growth, integration, and connection.

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Dr. Stefanie Bennett: Credentials & Background

Dr. Stefanie Bennett holds a PhD in Psychology with a specialization in Transpersonal Psychology from the prestigious Sofia University. Her doctoral dissertation, the first of its kind, focused on parental alienation from the mother's perspective. She is an award-winning poet and the author of over ten books, including multiple volumes of poetry and several scholarly works. Her major titles include: *The Soul's Return* – with a foreword by Dr. Douglas Gabriel; *Breath Divided: How Narcissism Wounds the Soul* – a synthesis of Aramaic wisdom and spiritual science, with a foreword by Dr. Neil Douglas-Klotz; and *From Breath to Spiral* (forthcoming) – a study of plasma as it relates to consciousness and soul fragmentation. Dr. Bennett has also written and published several workbooks specifically designed to support trauma recovery and healing from narcissistic abuse. She has extensive experience consulting with individuals healing from trauma and has training in domestic violence response.

Her academic achievements include graduating with honors from the University of Washington and being inducted into the Golden Key International Honor Society. As a researcher and speaker, she has contributed original thought to the field of intentionalism, explaining why and how intention works. She is a sought-after speaker and podcast guest on the subject of narcissistic abuse and soul healing. Dr. Bennett was a guest speaker for a master class and a guest author in Veda Austin's second book.

Dr. Bennett's language studies in Ancient Greek, Latin, French, Japanese, and now Aramaic inform and enrich her deep research in consciousness studies. Her forthcoming book and workbook on Mary Magdalene continues her exploration of soul reclamation and sacred feminine wisdom.

Addendum: WordTrails Overview: Game Design & Dynamics

By Scout Wilkins, Game Creator

Game Elements and Design

WordTrails is a table top game consisting of:

300 chips
50 Action cards
12 Trinkets
1 spinner

The chips each carry a single word. They are organized into 17 color groups. Each group gives possible answers to a question they are color coded to.

Examples of the questions:

- *Who owns this?*
- *What am I feeling?*
- *What is my level of desire or obligation?*
- *What natural forces might be at play here?*
- *What senses am I using?*
- *Where am I viewing this from?*

The Rules

1. WordTrails is built from the ground up on a foundation of authentic choice. You can. You don't have to. In this space there will be no pressure, no coercion.

2. Once a piece is played, it remains on the table. There are no “take backs”. What has been played is here, and we all work with what's actually in front of us.

3. No explanations. There is no need or ability to justify or defend. Your choices don’t have to make sense to anyone, including you. Interestingly, judgment, guilt, shame and blame turn out to vaporize in the absence of explanation.

4. Use the trinkets to keep oriented towards what resonates. The trinkets will keep you naturally attuned to noticing what feels true to you, in what another has played. What speaks to you, about another’s responses? This focuses the direction of energy flow toward coherence and connection.

These four simple rules create a level playing field. The unusual level of safety is based on the fact that the rules apply across the board, and no one can explain their way out of that fact.

The Premise

We are on a grand adventure together. None of us has been in this exact position before…it's all going to be new uncharted territory for each of us, without exception.

Even in a guided game, we don't know what we will create together today. It is yet to be seen, yet to be done.

Starting from right here, with conditions being what they are and shifting and changing as we go, let's move forward together.

All possibilities and actions are on the table and freely available for the choosing.

The adventure is taken a step at a time, with players watching, listening and responding to each other in turn.

Everyone has the opportunity to very privately witness what emerges and how it feels.

Players move forward building trails together step by step, taking time to consider what is happening in real time, giving information and taking action, in the absence of any worry about judgment.

Player Modes

WordTrails can be played alone or in a group.

Solo play mode
Two-player mode
Group mode
Guided mode

Group Size

In the proposed introductory game, the optimal group size is 2 - 4, in order for each player to have ample trinkets.

In actual play, larger groups have demonstrated a high level of creative capacity to figure out how to play with WordTrails together.

In one group, for example, a player spontaneously began by stacking a few chips they wanted to offer a fellow player. As those were passed around the table, other players built on what was being offered to the chosen recipient.
This built into everyone in the group being the recipient of information from the others.

The elements available can truly be worked with in any way imaginable.

Crossing The Threshold

Much like its metaphorical storyline, at the actual moment of taking the first step embarking on a true adventure, WordTrails offers an interesting threshold experience.

The fluid, unscripted nature of play with so many options can be unfamiliar and intimidating.

To help people feel more comfortable entering and playing for the first time, a specific game is suggested, to provide structure.

The Introductory Game

Table set up.

- The table is set up so all the chips are laid out around a working space in which the trails will be built.
- The action cards are left in a stack, to be drawn randomly or chosen deliberately, as desired.
- The spinner is available for anyone to use as appeals to them.
- The trinkets are divided equally between players.

Crossing the Threshold

- Rules and premise are reviewed.
- Players pause, connect, and agree to proceed, following those agreements.

Play Begins

Phase One. On the trail together.

- A chip or card is selected randomly and laid in the middle of the table. This is the entry point to the adventure.
- Players take turns choosing the chip or card they would like to play next, building on what has been laid down.
- The pieces are laid touching each other, so trails begin to form.
- The trails develop organically as the adventure unfolds. There are no rules as to what has to be played where, or how the trails “should” or are “supposed to” develop.

- Along the way, players watch for points of resonance, “me too” moments where another player has put down a chip or card that feels important. When this is felt, the player places one of their trinkets on the resonant piece.
- Phase one of the game is complete when all the trinkets have been placed.

Phase two.
At the campfire, making s'mores.

- After pausing to honor and acknowledge what has been created so far, all the chips and cards without trinkets are pushed away and the twelve trinketed pieces are brought together.
- Each player gets a turn to create their own personal design, or s'more, with those twelve elements.
- When the s'more is complete to their satisfaction, they can tell the story of what it says to them, or let their s'more speak for itself.
- The game is complete when every player has had a chance to create and share their own s’more.